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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY MITCHELL BROS. COMPANY, INCORPORATED. VOL. XVII. CHICAGO, ILLINOIS, NOVEMBER 15, 1898. No. 5. ONE DOLLAR PER ANNUM. SINGLE COPY, TEN CENTS.

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EXCELSIOR Dustless Warehouse and Elevator Separator,
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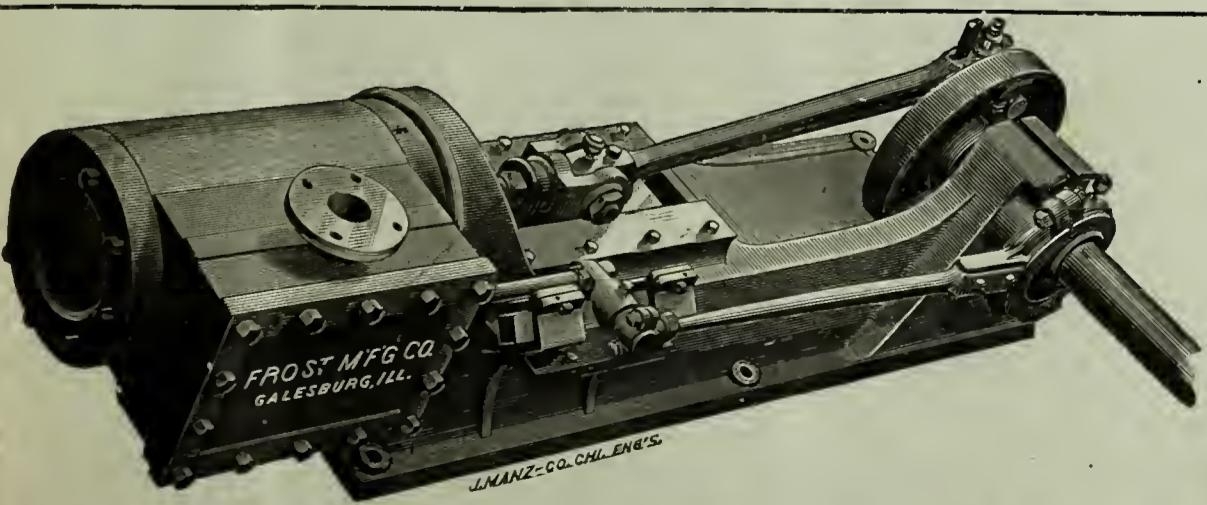
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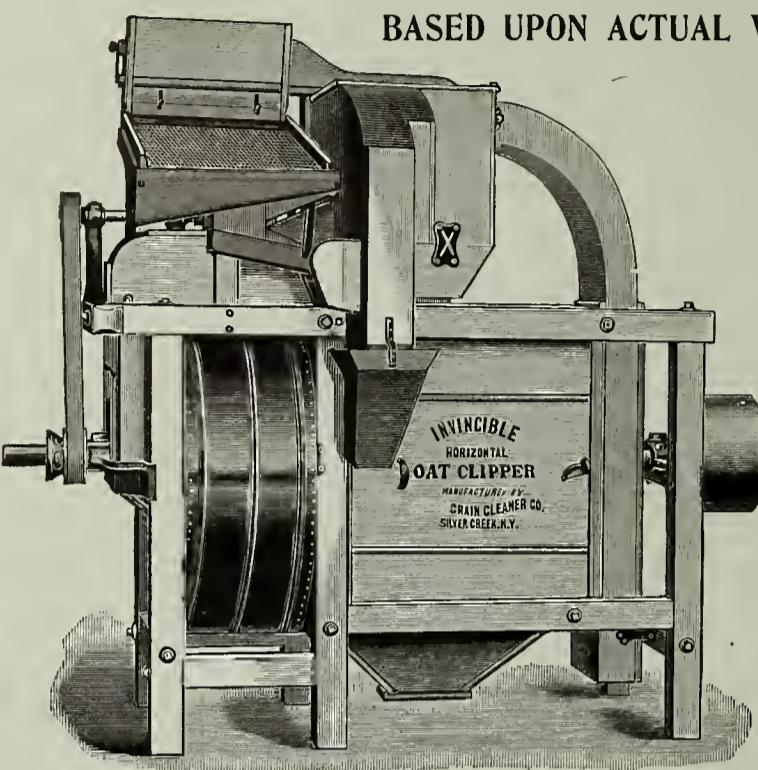
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BASED UPON ACTUAL WORK AND RESULTS OBTAINED.

The reputation of the

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Is known throughout all sections of the country where oats are handled. To gain this required a careful study and honest purpose. To maintain it requires good machines, made upon honor. It takes a good machine to induce a man to order the second, third and fourth. This is what many INVINCIBLE users are doing. If you have not an INVINCIBLE you are doing yourself an injustice. It saves what others waste. Send for references.



If you handle wheat—

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You will find it hard work to get along without the

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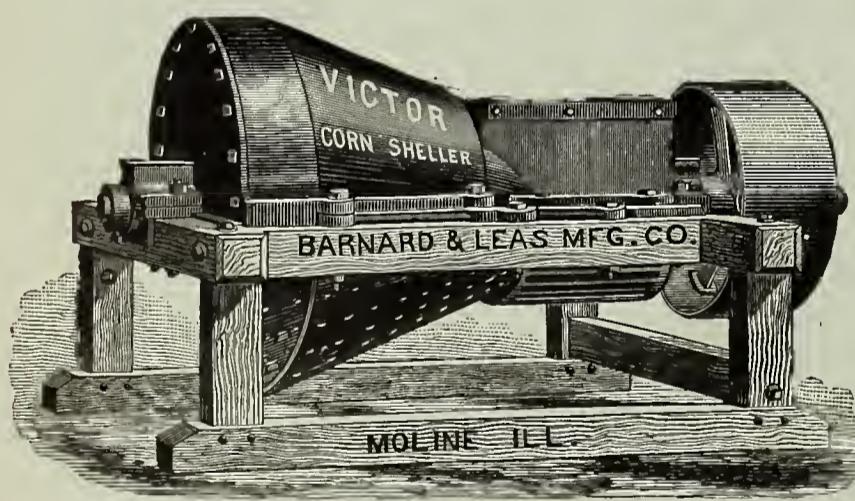
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Barnard's New Horizontal Adjustable Warehouse Scourer

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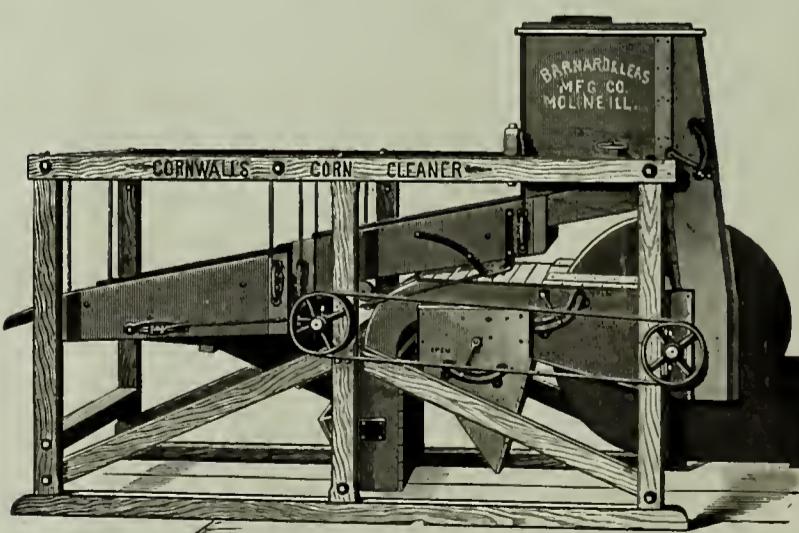
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The best outfit for shelling it is the
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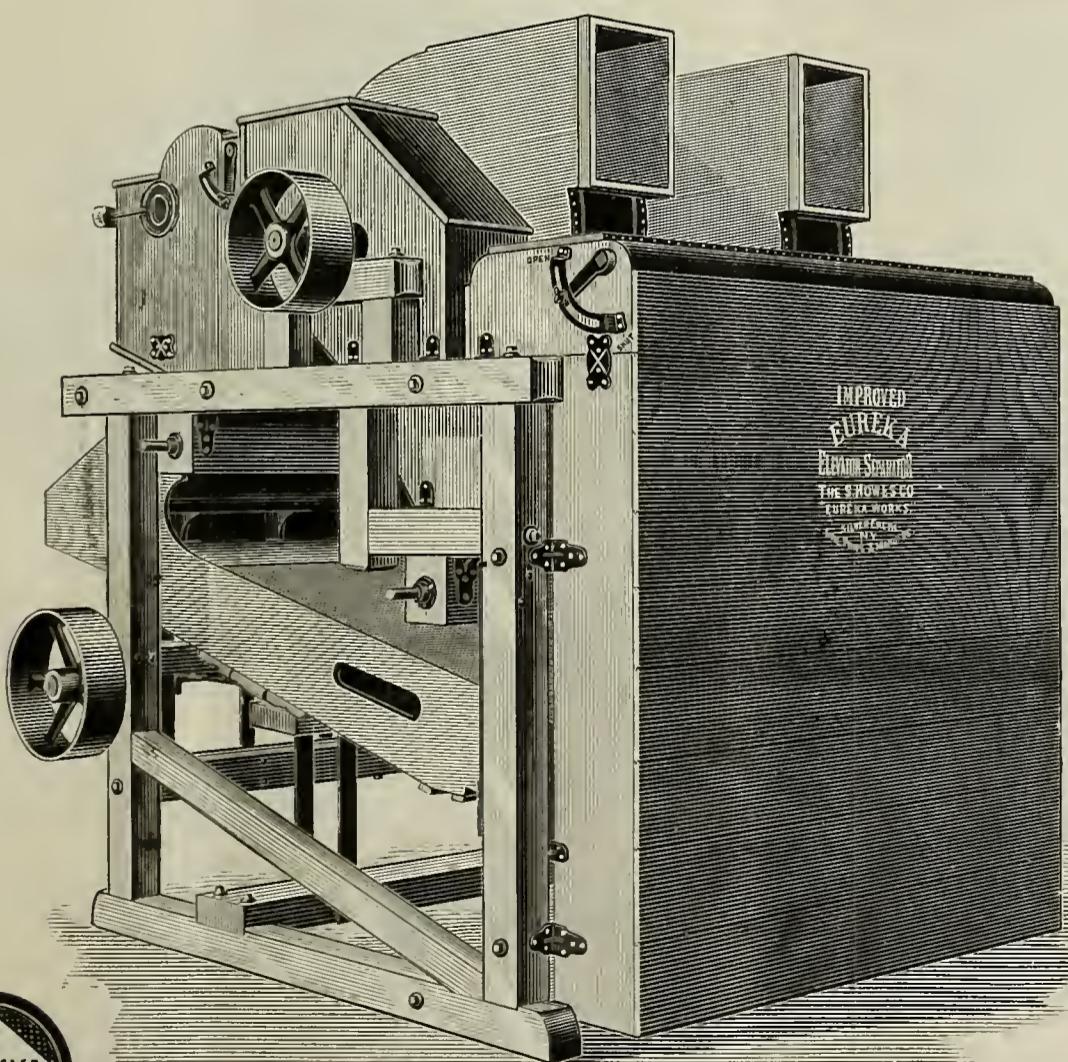
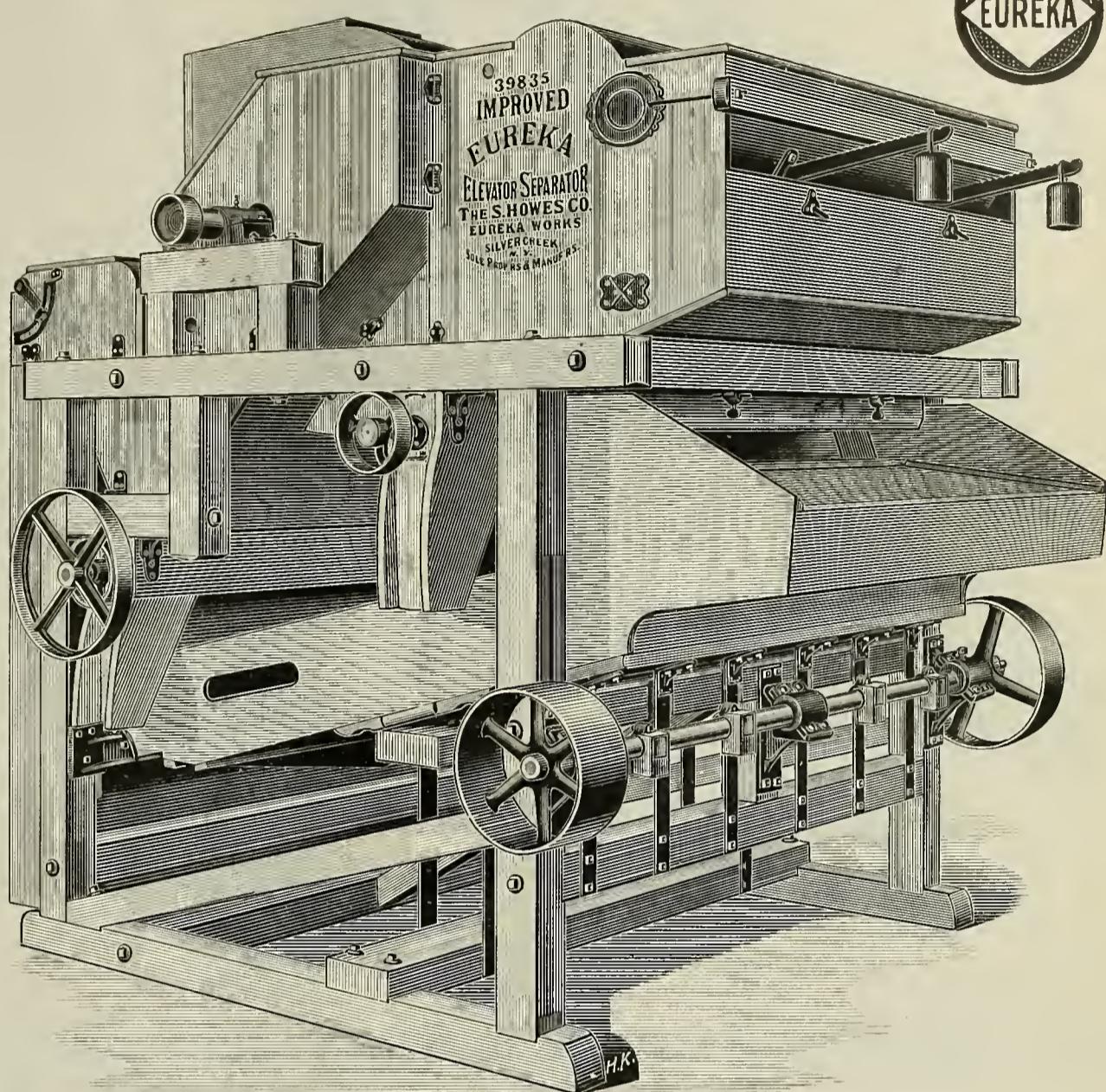


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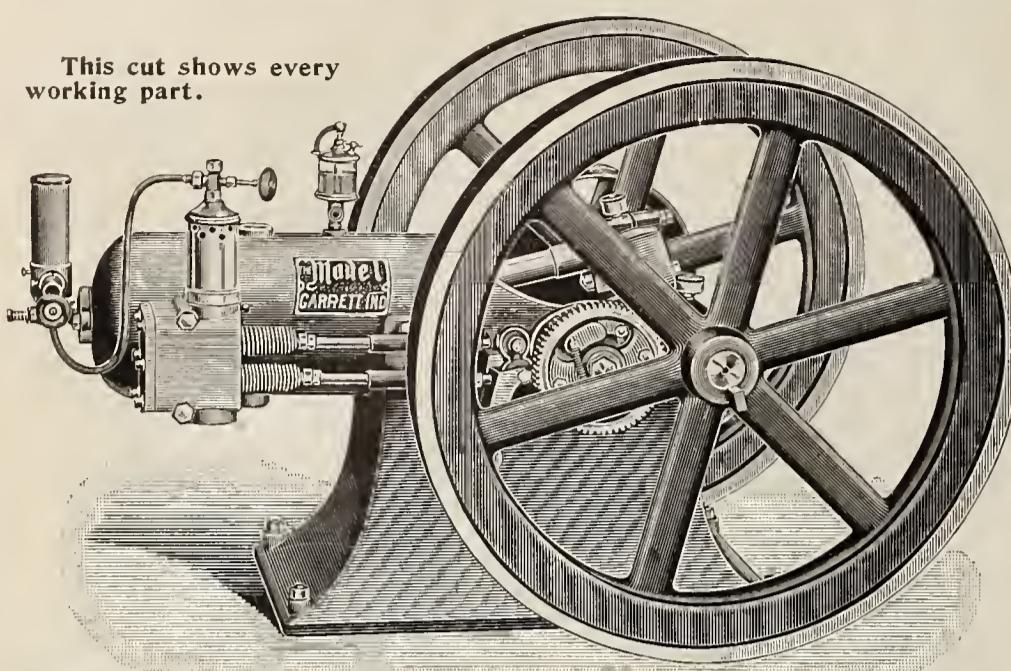
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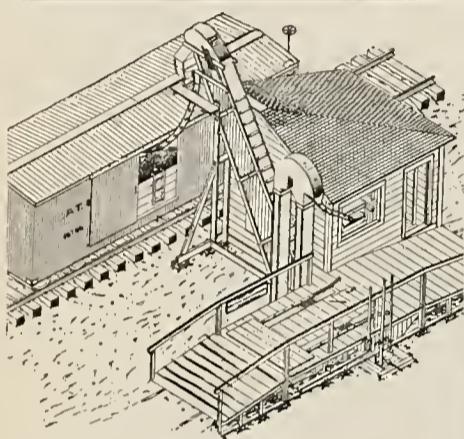
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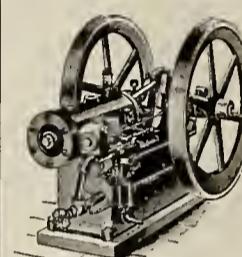
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369 Wabash Ave., CHICAGO, ILL.



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Separates clippings from
clipped oats.
Costs little.
Requires no power or oiling,
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Our circular tells all about
it.



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GAS AND GASOLINE
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Manufactured only by
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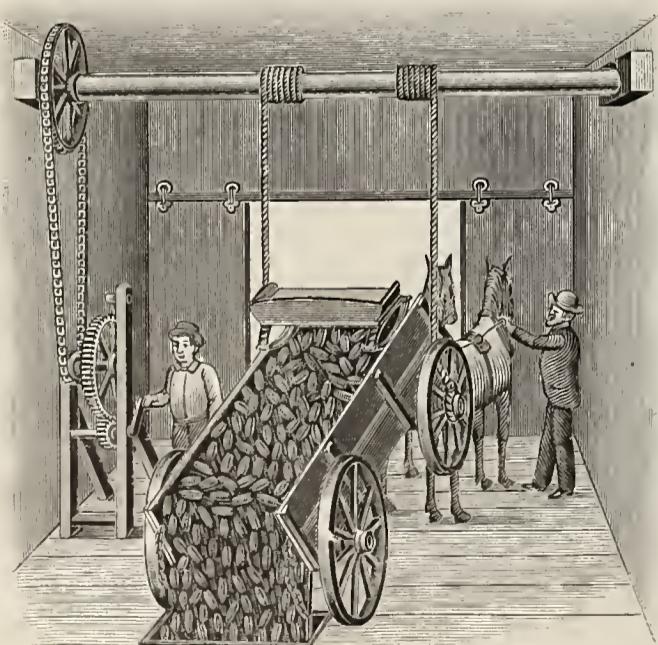
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The Miami Valley Warehouse and Elevator Machinery is the product of forty years' almost constant work, spent in research, experiment and development. The final result is, machinery that is economical, safe, durable and simple, and the only machinery that embodies all these essential features to their fullest extent.

Corn She'lers, Separators, Cleaners, Ear Corn Feeder, Dumps, Self-Cleaning Head and Boot, Drags, Conveyors, Etc. Also a full line of Elevator Supplies, Belting, Pulleys, Elevator Buckets, Etc.



This dump has no equal for ease, safety and speed. Will dump a sled as well as a wagon. The price is within the reach of all grain dealers.

Parties contemplating building or repairing warehouse or elevator will do well to get my prices and description of machinery.

Philip Smith, Sidney, Ohio.

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Has been
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AJAX runs the longest and largest drive in the world at Pensacola, Florida.

AJAX drives the new mammoth grain elevator in Manchester, Eng.

AJAX drives the great machinery of the Illinois Steel Co.

Use Ajax and Run no Risk of Accident.

H. CHANNON CO.,

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RITER-CONLEY MFG. CO.,

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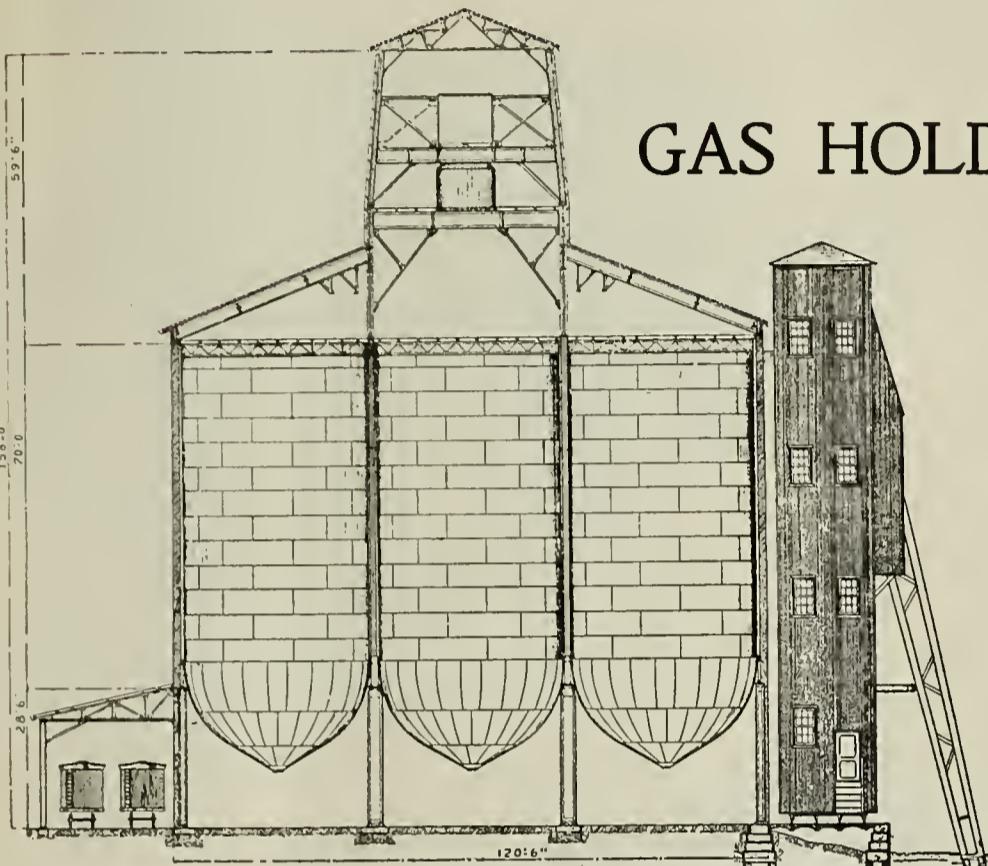
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WATER AND OIL TANKS,
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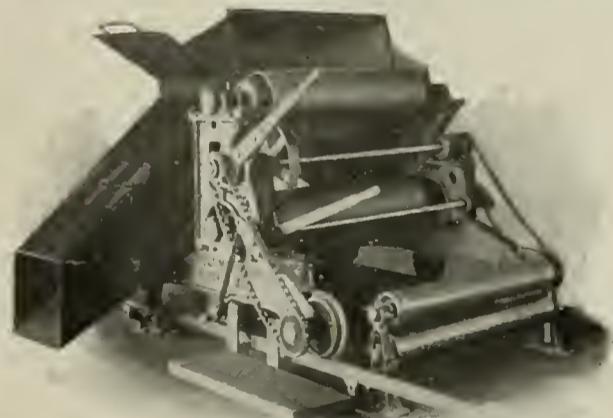


Cross section of Great Northern Elevator furnished by us at Buffalo, N. Y. Three million bushels' capacity. Steel throughout.

THE LINK-BELT MACHINERY CO.

ENGINEERS, FOUNDERS, MACHINISTS,
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GRAIN ELEVATOR MACHINERY



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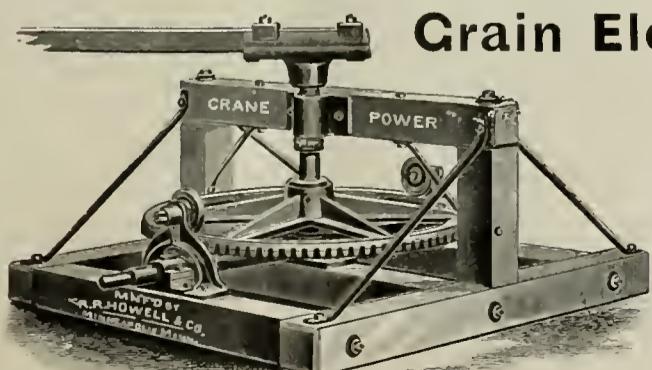
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THE ORIGINAL CRANE POWER.

Specially adapted for use in

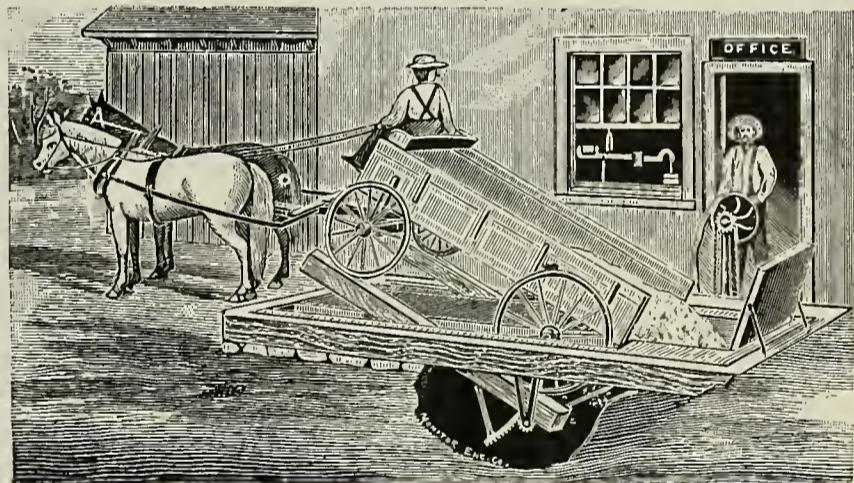
Grain Elevators.



We also furnish complete elevator equipments, including Car Pullers, Grain Shovels, Wagon Dumps, Sprocket Wheels, Chain, Boxes, etc. If you are in the market for elevator supplies don't fail to correspond with us.

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At FIFTY CENTS apiece are CHEAP, but they do not represent a better investment than we offer the "elevator and grain trade" in our

Controllable Wagon Dump.

WINCHESTER, ILL., February 4, 1896.

MESSRS. SAVAGE & LOVE CO., Rockford, Ill.

GENTLEMEN:—Your favor of the 28th ult. received and noted. Last July I put one of your Controllable Wagon Dumps in a Fairbanks, Morse & Co.'s 22-ft. scale, and it has given me entire satisfaction in every respect. In this locality the bulk of grain is as yet handled in sacks, and by tipping the Dump about one-half it makes a nice slant, making it very easy to pull the sacks to back end of wagon, where strings are cut and grain runs out into bin below. Every farmer, without exception, speaks in glowing terms of the merits of this Dump. In unloading loose grain from wagon there is no dump that will equal yours in being easily handled and always under control of operator. No scaring horses, no dropping of wagon and no noise. I consider a grain elevator incomplete without the Savage & Love Controllable Wagon Dumps.

Yours truly,

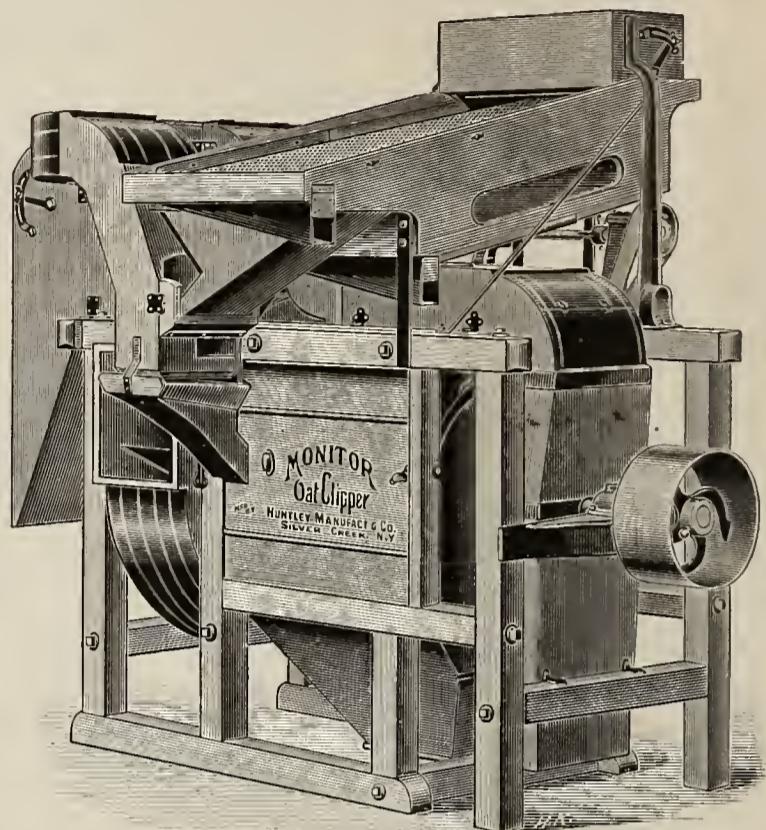
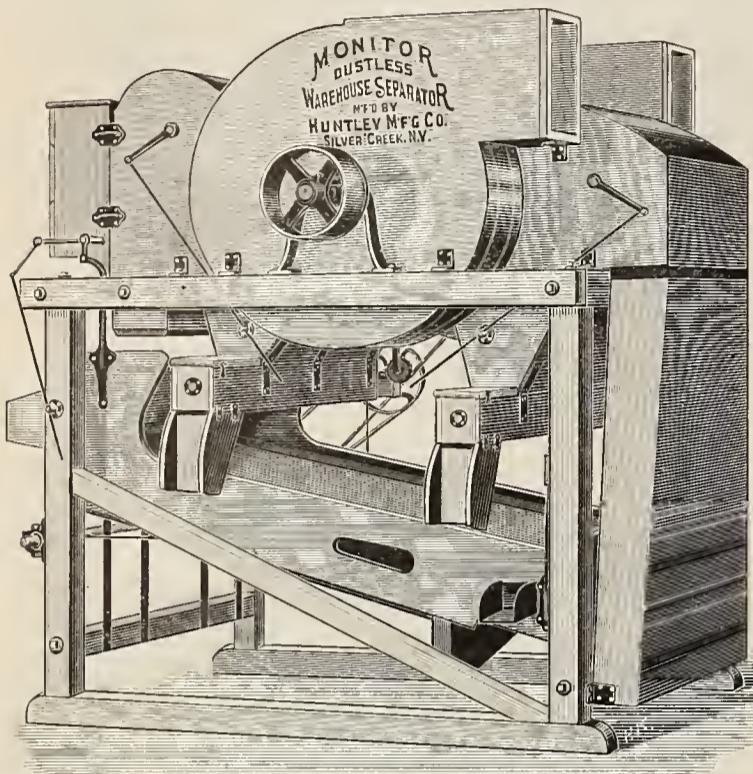
M. C. WOODWORTH.

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THE SAVAGE & LOVE CO., Rockford, Ill.

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Grain Cleaners.—Oat Clippers.



THE MONITORS.

The superiority of the "Monitors" over every other machine for the purpose is conceded by all experts in oat clipping and grain cleaning.

Acknowledged to be the best built, the lightest running and the most economical to use.

If there is a prominent modern elevator in your vicinity, step in and examine the machines. You will find them at work. Then judge for yourself.

The Monitor Smutter

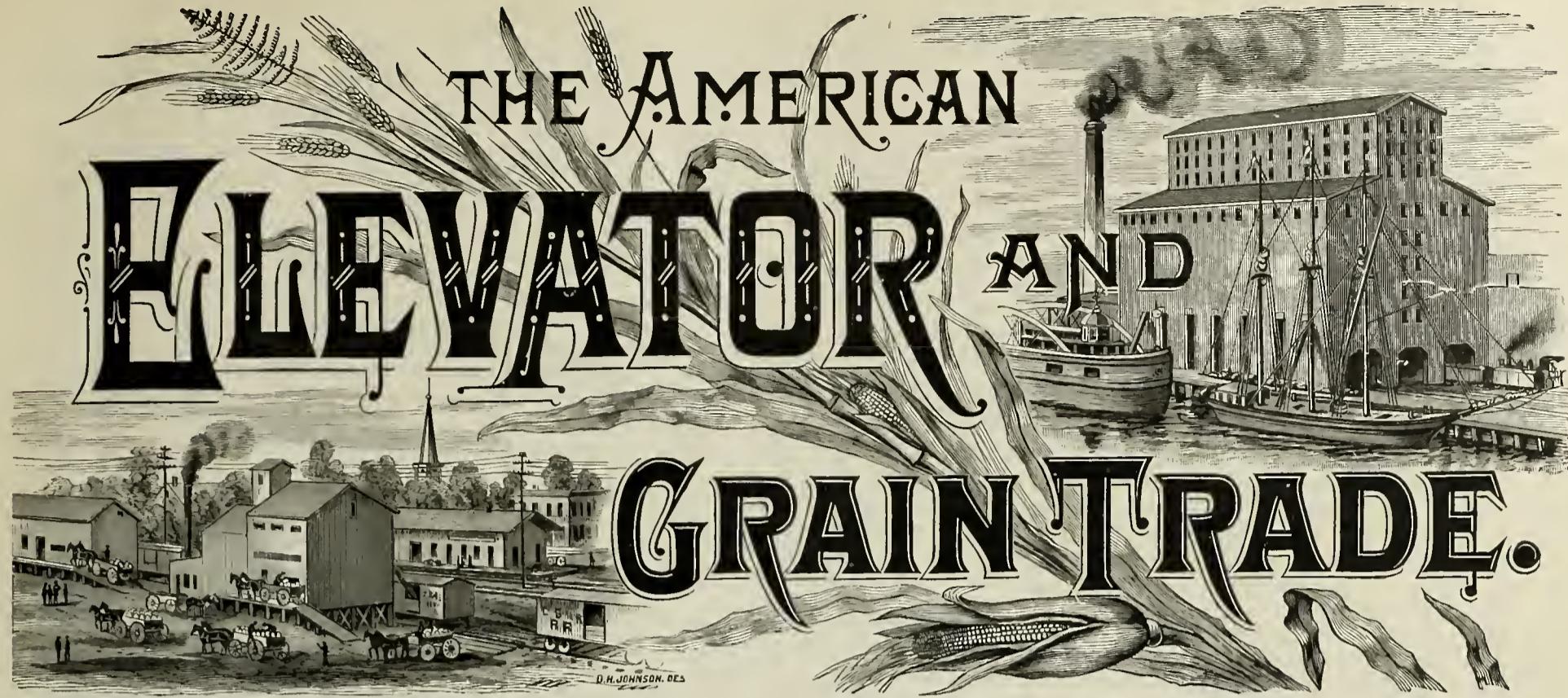
Will clean your smutty wheat, if you have any, and bring it up to grade. You know what this means.

We are leaders in this line, and manufacture only high-grade machines.

We do not offer them in competition with any other make of clippers or cleaners or smutters so far as price is concerned. It is poor policy to place a machine on the basis of price only

—WRITE US—

Huntley Mfg. Co., Silver Creek, N.Y.



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VOL. XVII.

CHICAGO, ILLINOIS, NOVEMBER 15, 1898.

No. 5.

{ ONE DOLLAR PER ANNUM
SINGLE COPY, TEN CENTS.



NORTHERN GRAIN COMPANY'S ELEVATOR "B" AT MANITOWOC, WISCONSIN.
John S. Metcalf & Co., Engineers, Chicago.

THE NORTHERN GRAIN COMPANY'S NEW ELEVATOR "B" AT MANITOWOC, WIS.

Situated as it is, on Lake Michigan, midway between the northern and southern limits of the state, Manitowoc, Wis., has many natural advantages as a cleaning and shipping point for grain arriving from Iowa, Wisconsin, Minnesota and the Northwest. Its harbor is one of the best on the lakes. The town is located on the Northwestern and Wisconsin Central railroads and on Manitowoc River, which affords an entrance for the largest boats.

It was in February, 1897, that the Northern Grain Co. of Chicago opened there its elevator "A," with a capacity of 800,000 bushels. The grains handled were oats, chiefly, then wheat, barley, rye and corn. The volume of business has grown steadily, and a new elevator has just been completed, an illustration of which appears on the first page, which will handle flaxseed in addition to the grains which went into the old house.

The new elevator is 126x110 feet, 166 feet in height and has a capacity of 640,000 bushels. The foundation was put in by the owners, the Northern Grain Co. The Barnett & Record Co. of Minneapolis, Minn., were the contractors for the superstructure. The plans and specifications for the foundation and superstructure and all the details for the machinery were made by John S. Metcalf & Co., engineers, Chicago.

The elevator is on Manitowoc River about one-fourth mile from its mouth. It has a pile dock frontage of 608 feet. It is located on the Northwestern Railroad and two tracks enter the building.

The foundation consists of piles driven 16 in a group. Each group is covered with timber grillage, on which rest the dimension stone piers. The cupola is 76 feet in height from the top of the bins and is supported by independent posts running from the first story girders to the top of the bins. These posts are capped with oak corbels, on which rest 12x12-inch sills. The bins are of ordinary plank construction, ranging in thickness from 6 to 10 inches. There are 92 in all, with a capacity running from 2,000 to 8,000 bushels.

There are two unloading legs with a capacity of 10,000 bushels per hour each, and three shipping legs with a capacity of 10,000 bushels per hour each. Two of the shipping legs can be used for unloading cars if necessary. There are nine small elevator legs running from the basement to the top of the bin story, which take the grain from two 1,200-bushel oat clippers, six 2,500-bushel separators and an aspirator. All the dust collected from the several cleaning machines and from the house sweepings passes through this aspirator, making a last separation before discharging the dust into the furnace. Thus, if there is left anything of value from the cleaning machines, it is taken out, instead of being sent on to the furnace, as is usually the case. This is an entire new feature of the elevator and is expected to be a paying innovation.

All of the Cyclone Dust Collectors discharge their dust into a screw conveyor, which conveys it to the aspirator. The air from all of the dust collectors is discharged into a specially constructed chamber 6 feet wide, 14 feet high and 126 feet long, the full length of the building. This room is lined with iron, making it as near as possible fireproof, and the bottom is hopped to a screw conveyor, which runs the full length of the room. This screw conveyor carries all accumulations of dust from the chamber to the aspirator, which discharges it into the furnace. The air discharged from the dust room is taken through a galvanized iron pipe five feet in diameter, out to a 6-foot sewer.

This dust chamber is something unique in elevator construction. By its use no air or dust whatever is blown from the building, a fact which probably could not be cited in the case of elevators built previous to the Manitowoc house. The dust chamber being lined with iron, it is rendered practically fireproof. This departure in dust handling devices is expected to add greatly to the efficacy of the entire plant.

In the cupola there are four 1,500-bushel and one 1,200-bushel scales. Over these scales are five 1,500-bushel garners. The distributing spouts are all of iron and of the Mayo patent. On the water side of the elevator is a marine leg of boom and yoke style, which has a capacity of 4,000 bushels an hour. It is of sufficient height to go into any vessel on the lake. The elevator has four dock-loading spouts and two car-loading spouts.

The power house is of brick, with concrete roof supported on steel I-beams, and covered with 5-ply tar felt and gravel. Its dimensions are 41x60 feet. It has a separate dust storage room, also of brick, 26x9 feet. This room holds the accumulations of dust in the event of there being more than the furnace can handle at any one time. An oil room also adjoins the engine house.

The power transmission from the engine to the cupola of the elevator is through a separate tower. A passenger elevator and stairway are also in this tower. This makes the elevator entirely cut off from the power plant.

The engine is a high-pressure Corliss of 300 horse power. The boilers are three in number, of horizontal, tubular type, 72 inches in diameter and 16 feet long. All the power plant buildings are fire-proof. The power house also contains an engine for the electric light plant. The stack is of brick,

THE ELEVATOR AT HALIFAX, N. S.

The new elevator which is to be erected at Halifax, N. S., by the government, to facilitate handling grain for export, will be 194x137 feet and 155 feet high, with power house 44 feet square, located at the northeast corner of the site. The belt gallery to the wharf will be 65 feet long, traveling over the roof of the freight shed of the wharf. The new wharf will be 696 feet long and 160 feet wide, with five railway tracks running the full length.

In the meantime, as the work of building both the wharf and elevator is progressing slowly, a deputation from Halifax, headed by the mayor, on October 21 appeared at Montreal to urge upon the provincial ministers the necessity of providing a floating elevator to handle the business coming to the city. This elevator would cost \$15,000. The ministers promised an early consideration.

A TEXAS ROASTING EAR.

Like ourselves, we imagine most of the readers of the "American Elevator and Grain Trade" will be surprised to learn that the city of Sherman, Texas, is 50 years old. Such is the fact, however, for on August 6 last the city celebrated its 50th anniversary. One of the features of that celebra-



tion was an industrial, or trades, parade, composed of some 80 or more floats. Among these was one by the firm of Pittman & Harrison, wholesale grain dealers of Sherman (members of the Texas Grain Dealers' Association, of which Mr. Harrison is president). The float was an elephantine reproduction of the firm's trademark, and is shown in the accompanying picture made from a snap-shot photograph of the float. It must have been a very artistic piece of work, for of all the floats in the parade none were more highly complimented by the people and press of Sherman. It is evident, too, that Secretary Tyler and the corn men in Decatur and Macon county, Illinois, must look to their laurels in this business of showing up sample roasting ears.

THE KANSAS ASSOCIATION.

Secretary Smiley's circular letter of November 1 advises the members of the action of the Association's short-weight committee in Kansas City substantially as reported elsewhere in this number. He advises members to mail full particulars of every shipment to Kansas City to Mr. G. N. Consley, 612 Exchange Building. He says: "I would request that each member know positively the amount he loads onto the car, weighing it, not estimating it with a tape line," giving also car number and initial and road shipped over.

There was an unusually heavy movement of wheat to Seattle and Tacoma during October.

It is less than ten years since Oklahoma was thrown open to settlement. Now her population is estimated at 330,000, and her 1898 wheat crop at 40,000,000 bushels—or nearly two-thirds that of Kansas.

A grain dealer in Guthrie County, Iowa, stirred up his village the other day by the following "local" in the town paper: "Every woman having to build her own fires can have a load of corn cobs at my elevator free gratis. Every man who makes his wife build the fires and will 'fess up' to it can have two."

A. H. BEWSHER, SECRETARY.

A. H. Bewsher, who, late in August last, succeeded W. H. Chambers as secretary of the Nebraska Grain Dealers' Association, is a Pennsylvania-New Yorker come West—a not bad combination, by the way. Moreover, he is young, and as our portrait tells you, good looking; and although he now modestly protests that he has hardly gotten the secretaryship harness fitted to himself as yet, he has already in his Nebraska work given promise of the stuff that is in him as an organizer and mediator.

Mr. Bewsher was born in Philadelphia in 1866, but spent the greater part of his life, up to his twen-



A. H. BEWSHER, SECRETARY.

tieth year, in Albany, N. Y. In 1888 he took to the road, traveling in the West for a wholesale dry goods house at Atchison, Kansas. After a year in that capacity, he resigned to become bookkeeper for a wholesale grocery house in the same city, being very soon promoted, however, to the important position of credit man for the firm. He remained in this position for four years, and then accepted a position with Greenleaf & Baker, now the Greenleaf-Baker Grain Company of Atchison, with whom he remained until selected to succeed Mr. Chambers, resigned. During his connection with this house, Mr. Bewsher had charge of their business in the southeastern states, and afterward traveled for them in the states west of the Missouri River. During these years especially, therefore, Mr. Bewsher spent the greater part of his time among the country grain dealers, making acquaintances, accumulating information and acquiring experience, which now will undoubtedly be of great value both to himself and to the Nebraska Association.

Mr. Bewsher's personal characteristics, no less than the experience mentioned, promise for him a large measure of success in his new position. He is genial and pleasing in his manner, he has tact and also sincerity, he writes well and is able to make a dignified, sensible and forceful address. Evidently, from all we hear of Mr. Bewsher, he is a man of good common sense, and is not in the least weighted down by a load of impracticable flapdoodle, which has no place in the equipment of men in his position and business.

Mr. Bewsher says his "pet hobby" is the contract system. He believes every grain dealer who agrees with a farmer for the purchase of grain should receive and give a written form of contract, setting forth the terms and conditions of that contract-agreement, and that all grain dealers in a state should use the same identical form of con-

tract. He hopes, after some other necessary reforms are made in Nebraska, to bring about this reform also. If he shall accomplish this aim, he will not have served his Association in vain, were all else he might do a failure.

WHAT HAS MUTUAL INSURANCE DONE FOR IOWA ELEVATOR MEN?

[From a paper contributed by F. D. Babcock of Ida Grove, Iowa, to the proceedings of the annual meeting of the Grain Dealers' National Association at Chicago, November 2 and 3, 1898.]

Sitting in my office one hot day in August, 1896, trying to figure out sufficient profit from five elevators located in the Maple River Valley (the garden spot of Iowa) to pay the premiums on a reasonable amount of fire insurance, a gentlemanly agent for the so-called "Iowa compact" stepped in to say, "I am very sorry, but the Blank Company declines to carry your risk at 3½ per cent per annum; but I will try and get it carried in some other company. But I think it would be surer if you would consent to pay the regular 'board rate,' which on this risk is 3¾ per cent."

Of course, I paid the rate, as insurance was necessary. Contemplating seriously this matter, and being secretary of the Grain Shippers' Association of Northwest Iowa, whose affairs were in excellent working order, I determined to see if something could not be done to relieve the grain men of these excessive charges for insurance. A postal card vote was taken, and a large number of shippers were favorable to the organization of a "Mutual," which we at once set to work to accomplish.

By the end of 1896, our articles of incorporation were on file with the Secretary of State, and approved by the State Auditor, according to law. But we could not begin business until we had the full amount of \$100,000 of risks to write; and as we had no agents, it was not until September 15, 1897, that we were ready to begin business. On that date we issued our first policy and wrote risks amounting to \$103,000.

Our plan is purely coöperative. As a basis, we accept "board rates," and collect exactly one-half of them. We do not take notes, nor levy any assessments, unless there are losses to pay. We write all policies for five years, and collect one-half the rate for one year, with a favorable rule for cancellation at any time. We charge a membership fee of \$1.00 and a policy fee of \$1.00—only one membership fee for five years, no matter how many policies. We will not write in one risk more than \$2,000, but will write as many risks as desired for one member, if the risks are detached.

But this does not answer the question nominated in my subject, namely, "What Has Mutual Insurance Done for Iowa Grain Men?" For those who have not placed any insurance with us, we have done nothing, except that we have enabled some of them to get cheaper insurance because we exist. For those who have placed insurance with us last season, we have done more. We have carried their insurance for fourteen months, at one-half of the cost for one year in the "compact companies." We have set apart a small surplus, and have a comfortable amount in the treasury besides. We have not grown rapidly, but have written about \$250,000 of insurance. We now write any good risk, as well as grain elevators, etc. Should we go out of business to-day, we have saved our policy holders over \$5,000.

Fortunately, we have not yet met with any losses. Neither do we want them. But if they come, as come they will, the saving we have made to date is ample apology for our existence. We cannot and do not write insurance outside of Iowa. Bankers and commission merchants accept our policies as collateral security for advances. The actual cost of our insurance for one year, which also included the expense of incorporation and amendment, has been, on risks averaging 3 per cent board rates, ninety cents per \$100. Doubtless older insurance companies can show figures more favorable to their policy holders. But these are our figures, and they are very satisfactory to our members. We ask the co-

operation of Iowa grain men who want insurance for protection, and not for speculation.

GEORGE B. DEWEY.

The subject of this sketch is not the famed "Dewey of Manila," but among his friends he is just as famous an individual as is the celebrated captor of the Philippines. He is a fighter, moreover; for he served three years with the Twenty-fourth Indiana Battery in the Southern States, during the late civil war, and his friends say that the only reason our Mr. Dewey could not have won the battle of Manila, as well as the admiral, is that he could never have made a campaign on water. Yet there might be even a difference of opinion on that question. Mr. Dewey has done most of his campaigning among regular western grain dealers, however, and a large army of them is strongly attached to his commercial standard.

George B. Dewey, traveling representative for Milmee, Bodman & Co. of Chicago and New York, was born in Delphi, Ind., June 30, 1847. He entered Asbury University at Greencastle, Ind., in 1860, and remained in college two years. In 1862 he enlisted in the Twenty-fourth Indiana Battery and served three years with the Twenty-third Army Corps in the Southern States. He was mustered out of the army in 1865 and located in the state of Mississippi, where he joined a company and engaged in the business of raising cotton on a plantation that had been leased for the purpose. He remained there one season and then became interested in the management of a linseed-oil mill at Logansport, Ind., and a



GEORGE B. DEWEY.

cottonseed-oil mill at Selma, Ala. Disposing of his interest in this business, he was appointed chief clerk by Gen. Milroy, then Superintendent of Indian Affairs on the Pacific Coast, and remained in the West some years. On his return he located at Cincinnati, Ohio, and was engaged in the grain business in that city for several years. In 1891 he came to Chicago, and was employed by the firm of Lasier, Timberlake & Co. to travel for them, his territory being Illinois, Indiana, Iowa and Minnesota. In 1895 he was engaged by Milmee, Bodman & Co. to represent them on the road, and has been with this firm since that time.

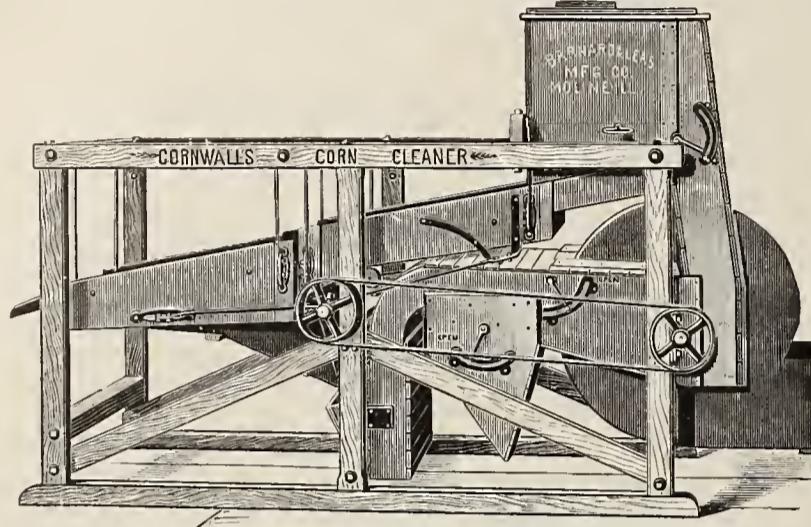
Mr. Dewey has a large acquaintance among the grain dealers in the country and desires to bear testimony to the high class of men who handle the grain productions of the country direct from the producer. In his experience he has found the successful grain buyers to be men of marked intelligence, strictly honorable in their dealings, and the leading citizens in their respective communities.

The Kansas Grain Inspector's report for September showed receipts of \$3,165.40 and expenditures of \$3,640.78, leaving a shortage for the month of \$475.38.

THE CORNWALL CORN CLEANER.

The corn crop of 1898 must now be got ready for the market; and every shipper who knows how strict—or uncertain—the inspection is knows how necessary it is that every ear of corn should be thoroughly cleaned to run that gauntlet. After many years of experience in constructing machines for this purpose, the Barnard & Leas Mfg. Co. placed on the market the Cornwall Corn Cleaner; and after many years' trial, the universal verdict of all shippers who have used it is that they have

guarantee, that it will clean corn cleaner than any rolling screen machine ever invented, and that no corn is graded dirty after going through this machine. This alone will effect a saving that will soon pay for the machine. Considering its merits, it is claimed that this is the cheapest machine ever offered for cleaning corn. Once through is all that is needed. The sieves are made adjustable, and sieves suitable for other kinds of grain can be used. It is particularly adapted for cleaning oats, using the corn sieves for this purpose. The oats will weigh several pounds heavier to the bushel after



CORNWALL CORN CLEANER.

never had their corn cleaned so perfectly clean, as with this machine.

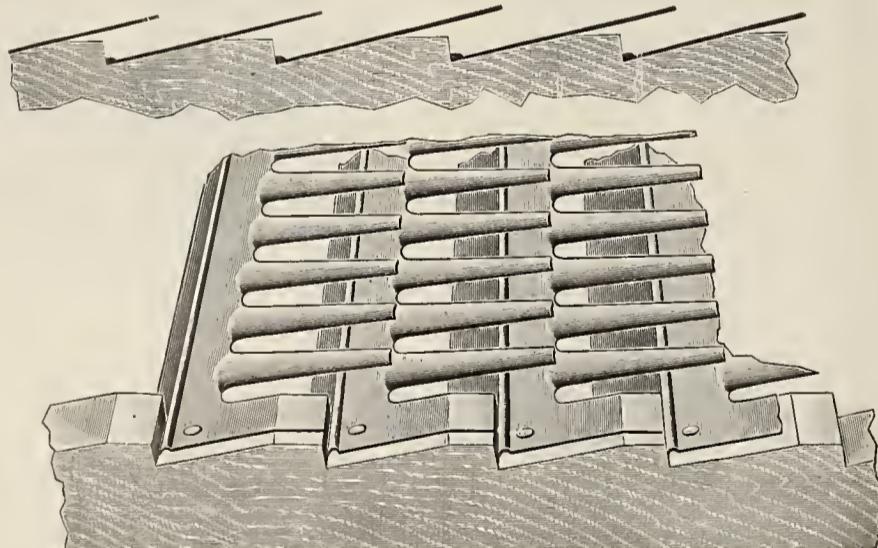
The main points of excellence are the large hopper, with the peculiar spreader therein, the special constructions of the sieve, and the two wind separations. The hopper is very large and roomy and has a spreader for spreading the cob and shell corn in a perfect manner and without choking. The sieves are made of strips of sheet metal, as shown in the cut, and extend across the sieve frame from one side to the other, overlapping each other, but each strip is placed higher than the one below it, thus leaving a space for the small pieces of cob to ride over each strip unobstructed, and preventing clogging of the sieve. This peculiar construction

running through this machine, with very slight wastage. In making this machine especially for oats the manufacturers put in an extra sieve for removing mustard seed.

Further particulars will be sent on inquiry by the manufacturers.

NEW ELEVATOR AT SUPERIOR.

The plans and specifications for building a large steel elevator in Superior have recently been perfected by the engineer's department of the Eastern Minnesota Railway Company and active work will be commenced early next spring, says the Evening Telegram of Superior. At the present time,



CORNWALL CORN CLEANER—SIEVE.

is covered by a United States patent and is the only form of sieve that will not clog.

It is believed that this form of sieve corn cleaner has no superior and far ahead of any other machine yet invented for separating cob from shell corn and cleaning the corn for market.

In operation the corn and cobs pass through an air separation, which removes the chaff, silks, husks and very light pieces of cobs. They then pass on to the sieves, which remove the small pieces of cobs (that no other cleaner has yet been able to remove) with the cobs and husks, if any, and the corn then passes into the large air truck, which removes the shrunken grains and light broken pieces of corn, leaving the corn perfectly clean. The screenings drawn out by the last air separation are caught in the screen box and can be ground into feed.

The manufacturers claim for this machine, and

owing to the opening of the Fooston branch, the elevators of the Great Northern system in Superior are crowded to the utmost capacity and it is this congested condition of things that has led to this decision by the managers of the road to build the new house. The building of the power house, now in process of construction, is but a preliminary step to the building of the steel elevator, as the capacity of the power house is to be sufficient to furnish power to the projected elevator as well as to those already built. Electrical machinery will be used for running the machinery of the new building.

E. L. Southworth & Co. of Toledo, Ohio, on October 17, shipped 120,000 bushels of oats in three solid trains of 40 cars each, to Liverpool, via New York. It was the largest export shipment of oats ever made by Toledo.

UNIFORM GRADES.

[A paper by E. R. Ulrich Jr., read at the annual meeting of the Grain Dealers' Association, held at Chicago, Nov. 2, 1898.]

The subject given me I believe is one on which we, as country elevator men, should look for a marked improvement, if we would but take the matter up through a good active committee in conjunction with the inspection departments of the various markets throughout the United States.

The interior western shipper needs uniform grading and the interior eastern buyer wants uniform grades; so that no matter with what market he does business, he will be almost certain that, whether he sells his grain to John Smith of Chicago, or buys it from John Smith of Chicago, on Chicago inspection, it will be the same as if it was sold to or bought of Joe Smith of Philadelphia on Philadelphia inspection.

There is one class of dealers that no doubt would not be benefited, and that would not want uniform inspection. These are the mixers, or some of the elevator owners or operators, who sometimes like to have the standard pretty high where they buy and pretty low where they sell, thus enabling them to mix to a good advantage.

Look at a few of the inspection rules, for instance, as they now appear on the different grades of corn in the different markets. In Chicago, the rules on yellow corn: "No. 1 yellow corn shall be yellow, sound, dry, plump, well cleaned." "No. 2 yellow corn shall be three-fourths yellow, dry, and reasonably clean, but not plump enough for No. 1." "No. 3 yellow corn shall be three-fourths yellow, reasonably dry and reasonably clean, but not sufficiently sound for No. 2."

In Toledo: "No. 1 yellow corn to be sound, dry and only slightly mixed with unsound kernels, and to be at least 95 per cent yellow corn." "No. 2 yellow corn to be reasonably sound, reasonably dry and reasonably clean, but not good enough for No. 1 yellow, and to be seven-eighths yellow corn." "No. 3 yellow corn to include all other corn not good enough for No. 2 yellow, may be slightly damp, but not so badly heated as to render it unmerchantable."

The Toledo grade of No. 2 white corn: "To be white, sound, dry and reasonably clean, and to contain not more than 5 per cent of colored corn;" and the Chicago grade No. 2 white corn "shall be seven-eighths white, dry, reasonably clean, but not plump enough for No. 1."

I could cite a number of instances where the lack of uniformity in grades in the different markets was shown. In one case a dealer bought about 10,000 bushels of grain at a certain station. He had it inspected in Decatur. The corn, which graded No. 4 in Decatur, he turned to Chicago, as that market was best for the lower grades. The corn which graded No. 3 in Decatur he turned to Toledo. On arrival the corn which he shipped to Chicago graded No. 3 in Chicago, whereas it had graded No. 4 in Decatur; and that which he turned to Toledo graded No. 4 in Toledo, whereas it had graded No. 3 in Decatur.

Another instance: We shipped a car of corn to Toledo, which graded No. 4 in Toledo. A sample out of the same car we sent to Chicago, where the inspection department pronounced it No. 3, and said it would have graded No. 2 but for some bad grains which it contained.

What we need are inspection rules in all the markets which will be so similar that grain you are shipping to one market, if turned to another, will be almost certain to grade the same. In my opinion the inspection rules should be more explicit, and on each grade the rules should be so plain as to admit of but one construction. The percentage of unsound kernels should be specified; the weight per measured bushel should be mentioned; the percentage of foreign substance, also, whether the grade admits of sprouted grains or not, and of musty smell or not.

We do not think that rules reading as follows are worded as they should be: "No. 3 corn, to be corn reasonably dry, reasonably clean, but not good

enough for No. 2." Or, "No. 3 yellow to include all other corn not good enough for No. 2 yellow; may be slightly damp, but not so badly heated as to render it unmerchantable." According to this latter rule it seems to me either white or mixed corn, if not good enough for No. 2 yellow corn, might be classed as No. 3 yellow.

The country grain dealer heretofore, it seems, has had very little to say as to the inspection rules in the different markets, whereas he should be entitled to some voice in the matter, as it is a matter in which he is vitally interested. You make a sale of 10,000 or 15,000 bushels of No. 3 corn for 20 days' shipment in a market where you have not shipped for some time. The corn is shipped—just such corn as on your previous shipments had graded No. 3. The corn arrives at destination and is inspected; about half of it grades No. 3 and the balance No. 4. What are you going to do about it? You appeal the inspection committee. The original inspection is sustained. So you have to take your medicine and gulp down a large-sized dose of experience, and there it ends.

Then take the inspection rules on oats. The Toledo, Philadelphia, Buffalo, Newport News, Boston and New York inspection rules on oats seem to go more into details as to weight than some of the other markets, while they vary a good deal as to the weight per bushel of the different grades, Philadelphia allowing, according to their rules in force Nov. 1, 1896, white oats No. 2 to weigh not less than 27 pounds per bushel; Newport News, according to their rules in force Sept. 2, 1895, requires No. 2 white oats to weigh not less than 28 pounds, and the No. 3 white oats to weigh not less than 25 pounds per bushel; while the Philadelphia grade No. 3 white oats does not specify the weight. The Buffalo inspection rules of Nov. 21, 1892, specify that No. 2 white oats shall weigh 28 pounds per bushel and No. 3 white oats 23 pounds per bushel. The Toledo inspection rules of February, 1898, specify that No. 2 white oats shall weigh not less than 30 pounds per bushel and No. 3 white oats shall weigh not less than 28 pounds per bushel and No. 4 white oats to weigh not less than 26 pounds, thus taking a heavier weight on No. 4 white oats than some of the other markets take on No. 3 white oats.

Now, these differences in inspection rules are but a few that can be found by comparing the different standards which the different markets have adopted. What we, as country dealers, want, is a grade of No. 2 red winter wheat, a grade of No. 2 yellow corn, a grade of No. 2 white corn, and a grade of No. 2 white oats, etc., etc., which will be the same in Kansas City, St. Louis, Chicago, Toledo, Detroit, Buffalo, Philadelphia, New York, Boston, Baltimore and Newport News and all of our markets, and which is one and the same grade in each particular kind of grain, so that whether we make a sale in any one of these markets we will know that it will make no difference as to the grading whether it goes to this market or to that market. We want the rules to be so explicit and comprehensive, so that there will be no chance of misinterpreting them.

In my opinion this is a field especially adapted for cultivation by our National Grain Dealers' Association, assisted by the different state organizations of grain dealers; and I think our organization should appoint a strong committee to take steps at once toward a meeting of our committee with the inspection committees of the different boards of trade, to be held at an early date, with the object in view of a uniform set of inspection rules, to be used in all the principal grain markets of the United States; and also that our organization shall pass resolutions having the above object in contemplation and recommending the various state grain organizations to do likewise. This is my sincere desire.

I think that the proper committee, with the help of the various inspection committees of the different markets, and the inspection rules of the different markets, as they now are, with some revision and adding some very important points, could form rules which would be very good and which we

could recommend and which we would be better satisfied either to buy on or sell by.

In concluding, let me add that it is with genuine satisfaction I can look back at the records of our grain which has been inspected in Philadelphia. In doing so I cannot recall a single instance in years of experience where our grain shipped there has graded below our expectations, and we have heard great numbers of complimentary remarks by other shippers regarding the just weights and inspections in that market, which I think largely due to the sterling qualities and superior judgment of that prince of inspectors—Mr. John O. Foering. It was with pleasure that I read in the Forty-fourth Annual Report of the Commercial Exchange of Philadelphia the report of the grain committee, especially regarding Mr. Foering, which reads as follows:

"Your committee takes great pleasure in rendering a just tribute to the highly gratifying administration of the inspection department by your chief grain inspector, Mr. John O. Foering, and in adding that the reputation abroad of Philadelphia's

ent boards of trade and commercial exchanges, from the snow-capped Rockies to the sandy slopes of the Atlantic; and may the great Father of Waters bear on his bosom toward the tropics the same standard of wheat, corn and oats and other cereals as the fair mistress of the inland seas casts with her lavish hand toward the four corners of the earth.

THE TOLEDO ELEVATOR RUINS.

The illustration herewith of the ruins of the Union Elevator at Toledo, Ohio, gives a better idea than can any written description of the vast mass of grain which such a disaster transforms from a mobile bulk, when under the control of active machinery, to an inert mass or dead weight as pitiless as so much sand. The explosion of September 20 left a veritable mountain of grain, which a hundred men, working steadily for twenty days, had so far failed to remove that on October 10 there remained \$100,000 worth still to be saved from the pile; and it was only on October



RUINS OF THE UNION ELEVATOR AT TOLEDO, OHIO.

qualities and grades of grain stands unexcelled by that of any other American port."

As shippers from the West we feel equally gratified with our good treatment at the hands of Mr. Foering, and hope to see his administration continue for many years to come. If we country shippers can only get uniform inspection at other markets through the country which will be as fair to all as they have been on our grain for fifteen to twenty years in Philadelphia, we ask for no better grading. If the grades of grain from Philadelphia give as great satisfaction abroad as they give the western shipper to that market, the foreigners are certainly getting all they can possibly ask for. Long live the prince of inspectors. Mr. Foering; soon may Philadelphia lay claim to be queen of the grain exporting markets of our free America; and may the flitting sails and curling smoke of hundreds of grain-laden ships from that port tell to the world that Philadelphia, by her justice and equity, has become by right of conquest the queen of America's exporting grain markets. And may the motto of our most noble republic be ours as grain men also, as to this department of our world of commerce: "Out of many" inspections one which shall be recognized by our National Grain Association, by our state grain associations, and by our differ-

25, thirty-five days after the explosion, that the last of the victims was accounted for, when the men who were removing the grain found the charred remains of Sam Alexander and portions of another body believed to that of the son of Superintendent Parks.

On October 17 the coroner's verdict was given to the public. It found that fourteen persons were cremated, and that the lessees, Messrs. Paddock, Hodge & Co., are responsible for the fire, and charges them with gross neglect for failing to provide the necessary machinery for preventing the accumulation of dust.

Much of the grain in the pile shown in the picture was uninjured by the explosion and fire, but much more was water-soaked and mixed with ashes and other debris. The fire in the mass continued for weeks, however, and for nearly a month after the fire a stream of water was kept constantly running on the ruins. At that time the oats bins under the grain had not been touched by the wreckers, owing to the intense heat.

The grain loading record at Seattle, Wash., was broken in October at the West Seattle Elevator, when 95,690 bushels of wheat in bags was loaded on board ship in 25½ hours.

THE STORY OF AN INVENTION.

Few great inventions have sprung full-fledged from the brains of their creators. On the contrary, they are of slow growth; the evolution of a bold idea, itself familiar for years, or generations, or it may be centuries, before its full, or even partial, fruition may have become the world's possession.

No more striking example of this development will occur to the reader than that of the screw conveyor, as made familiar by the H. W. Caldwell & Son Company of Chicago.

At first thought one might refer the beginnings of this invention to the screw of Archimedes, a device for raising water for irrigation, familiar to all mechanics; or to the conception, centuries later, of Oliver Evans, the great millwright, which he de-

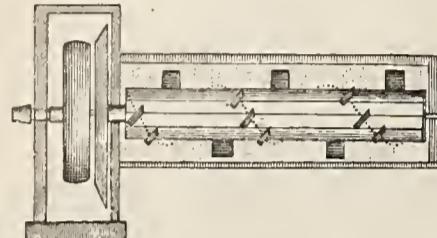


FIG. 1. OLIVER EVANS' CONVEYOR.

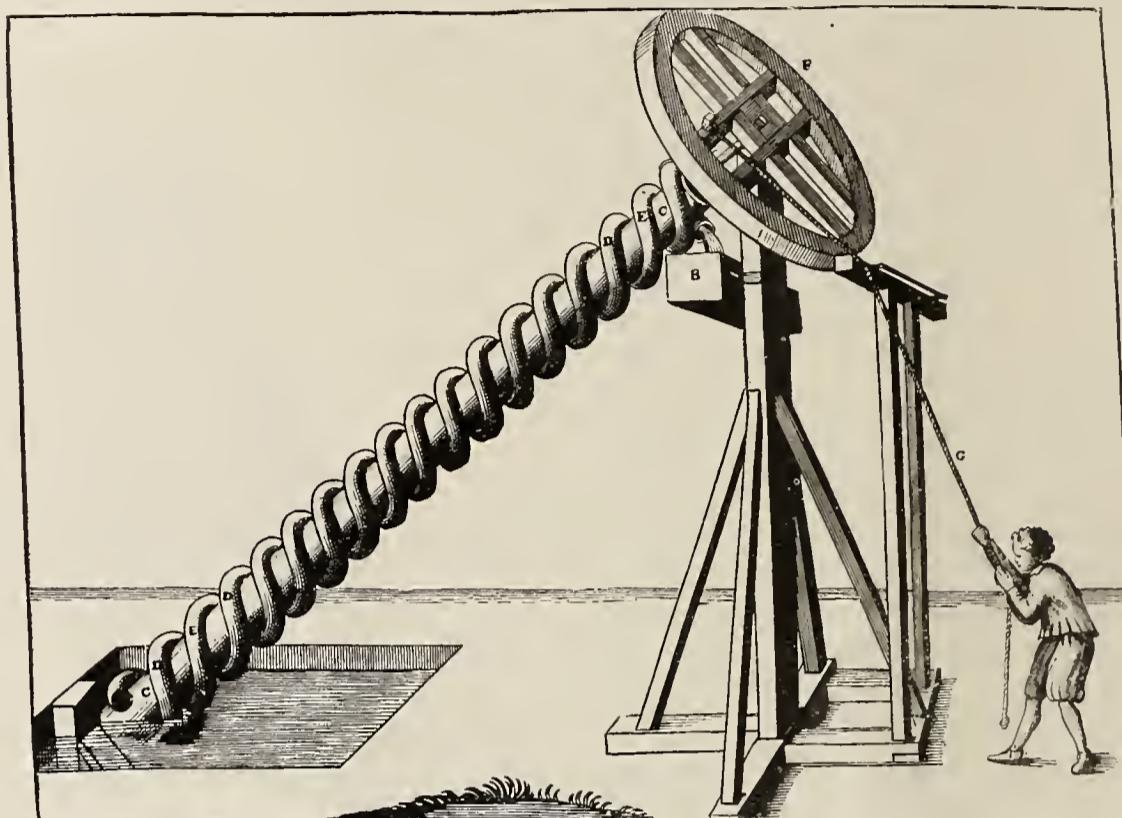
veloped in the screw conveyor of his famous "automatic mill," or in his paddle conveyor for the horizontal moving of grain, flour, etc., as shown in Figs. 1 and 2, taken from Evans' book, "The Young Millwright and Miller's Guide," that rare mine of information for the curious student of mill mechanics. The paddle conveyor, familiar to old millwrights, was made with wooden paddles for flights, the shanks being inserted spirally into an eight-sided wooden shaft. In the last named conveyor we find the real germ of the modern spiral conveyor, although it was many long years after Evans had gone to his rest before the spiral conveyor had been practically developed by a better mechanical construction. All sorts of metal flights on wooden and metal shafts were tried with indifferent success, until Mr. H. W. Caldwell took up the problem. He was operating a grain elevator at Indianapolis when, in 1875, after having suffered

buyer had only to notice whether the flight extended more than one revolution or but half-way to detect the difference.

This important improvement at once met with the recognition and approval of the widely diversified industries interested in such a device for moving substances horizontally, and handlers of flaxseed and crushed stone, of malt, cottonseed and clay, of grain and flour, and of innumerable

"It is obvious that with the constant action of the spiral flight against the material conveyed, the less obstruction in the way of rivets or joints that is presented to the passage of the material, the less will be the friction on the conveyor, and inasmuch as the rivets connecting conveyor flights are the part first attacked by wear, their absence would materially increase the durability of the conveyor.

"Again, no matter how excellent the workmanship,



THE SCREW OF ARCHIMEDES.

other raw or finished products all testified to the adaptability of the Caldwell spiral conveyor to their requirements. Mr. Caldwell, thereupon, retired from the grain business, and removing to Chicago, began in a modest way to put his conveyor on the market. His success was, of course, immediate and permanent; and his business has grown during the intervening years since quite in proportion to the development of this nation's

a theoretically perfect spiral is practically impossible where the spiral is made in sections. It has also been developed by the users of conveyors that the best conveyor to use for carrying any material is one with as thin an edge as possible, consistent with sufficient strength to propel the material. The reason for this is that the edge, if thin, will enter the material like a shovel edge, and the frictional wear on the edge will be less than if a larger surface on the outer edge of the flight wears against the material. Inasmuch as the edge of the flight is apt to wear more rapidly than the face or surface of the flight, the best engineering practice dictates the thinnest edge to the flight, consistent with the strength necessary to meet the lateral pressure of the material conveyed.

"With all these desirable features in mind, those who have given the matter much thought, have had before them as the ideally perfect spiral conveyor, one which would have a continuous flight without laps or rivets, and with the cross section of the flight tapering: the part next the shaft thicker to give strength, and the outer edge thin to secure the least frictional wear against the material.

"Such a spiral, which would truly meet the definition of a geometrical "Helicoid," as given by Webster ('Helicoid—a warped surface which may be generated by a straight line moving in such a manner that every point of it shall have a uniform motion in the direction of a fixed straight line, and at the same time a uniform angular motion about'). while conceded by all to be the great improvement ahead in this line of manufacture, has hitherto defeated the expenditure of much thought and money in the effort to produce it.

"Even a slight knowledge of the geometrical proportions of a true helicoid or perfect conveyor flight will discover mechanical difficulties in the way of its production by machinery, which theoretically are insurmountable. But the impossible in mechanics is not to be defined by theory or even past experience; and after many years of patient application and experiment, F. C. Caldwell, of the 'Conveyor Caldwell's,' has succeeded fully in solving the perplexing problem.

"It is appropriate that the Caldwell conveyor should continue the standard of excellence, and the manufacturers of that specialty, H. W. Caldwell & Son Company, announce the successful production and



FIG. 2. WOODEN PADDLE CONVEYOR.

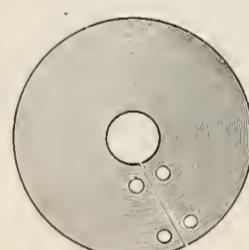


FIG. 3.

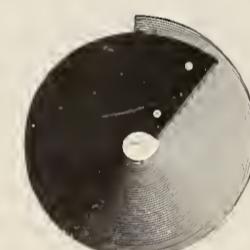


FIG. 3.

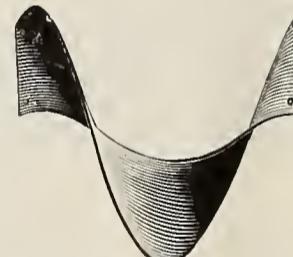


FIG. 3.

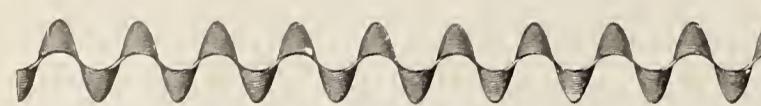


FIG. 4. CALDWELL'S HELICOID FLIGHT.



FIG. 5.

repeated loss and annoyance through the mixing of grain in the conveyors, he deliberately devoted himself to the improvement of the spiral conveyor and made one that would fit the trough closely enough to clear it.

The main feature of Mr. Caldwell's invention is the "Caldwell Flight," shown in the threeents marked Fig. 3, which is known wherever the spiral conveyor is used. The metal disc was formed into a flight, thus making a conveyor true in its outer edge, with flights which cling to the shaft and resist any tendency to slip or break down. The original flight has been variously imitated, but the

business in lines to which his device is adapted.

For over a quarter of a century the Caldwell conveyor remained the standard of excellence; and now it appears that in this evolution of the screw conveyor the house of Caldwell is able to take one more step in the line of improvement which has made the name of Caldwell familiar to the mechanical world. This step is detailed in a little pamphlet just published, entitled, "The Story of an Invention," from which we have obtained some of the facts referred to above, and which will be sent by H. W. Caldwell & Son Company to the reader on application. The author says:

offer for sale the Caldwell Helicoid Conveyor, as the culminating improvement in spiral conveyors.

"A reference to the cuts (Figs. 4 and 5) will give some idea of the character of the Helicoid flight. It is made of a single strip of metal without rivet or lap; is a mathematically perfect spiral, and in its cross section has the thickest portion near the shaft, giving strength, while the thinner edge offers the least possible wearing surface to the material.

"This flight, forced on the shaft by special machinery, meets the requirements of an ideal spiral conveyor. It is more easily repaired than the older types—the process being to replace the broken portion of the spiral with a section of the helicoid flight of proper length, the repair section being easily slipped over the pipe shaft, owing to the fact that the collars at the end of the pipe shaft for helicoid conveyor are placed inside the pipe instead of outside, thus strengthening the pipe without offering obstruction to the passage of the material.

"In offering the Caldwell Helicoid Conveyor the manufacturers rest in the confidence that the appreciation of mechanical excellence is far from lacking among the trade, and they feel sure its merits will receive a ready and complete recognition."

THE VERITABLE CAR LOAD IN THE GRAIN TRADE.

[A paper by Mr. D. G. Stewart of Pittsburg, Pa., read at the annual meeting of the Grain Dealers' National Association, held at Chicago, November 2, 1898.]

While one of the original members of this Association, it has never been my good fortune to meet with its representatives until this occasion. I find the committee have assigned to me a topic, "The Veritable Car Load in the Grain Trade." That has a familiar sound, and many of you will recognize it as an old friend.

I am at a loss to know how to approach the subject, for I assume that it is expected that the speaker would suggest some remedy to meet the occasion. On first embarking in the grain business, shall I confess, as far back as 1873, the capacity of a grain car was 20,000 pounds, and the railroad officials made dire threats of what they would do in case the cars were overloaded, which was frequently done to the advantage of the shipper. But for years past the railroad companies have established scales, and the matter of loads causes them no anxiety. Their roadbeds are well ballasted, and the rails heavy enough to withstand any load they may be called upon to carry. You are all aware that they prefer cars loaded to their full capacity. Such being the case, what is our remedy, and how can we establish a uniform weight, which shall represent a carload of any commodity in our line of business?

Some of you with good memories may be able to recall cases where you have bought from some shipper, say, ten cars of corn. Nothing further is said at the time of purchase, but "I buy ten cars." As usual, the railroad companies do not furnish cars promptly (how convenient it is to unload our shortcomings on the railroad companies). Finally the cars arrive, and in the interval the market has declined. In that event, you are liable to find 60,000-pound capacity cars. Should the market advance, the cars furnished will be 30,000-pound capacity. The shipper will contend that the cars as furnished by the company had to be loaded to their capacity. I venture to say there is not a dealer present who has not had this experience.

It is easy to recall these conditions, but to devise a remedy, one that shall be uniform and adopted by all dealers throughout the country, that is what we aim to arrive at. I have given this matter much thought, and the only solution I arrive at is that we should buy quantities instead of cars. Should you buy 5,000 bushels of wheat, the shipper might send it in five cars or ten cars. We have all suffered from overloaded cars. Doubtless you can recall instances where cars could not be sold to certain customers, because, as is frequently the case, the country miller has not bin-room and frequently not the cash to pay for 1,000-bushel cars.

On the other hand, we are confronted by the rail-

road officials, who insist upon the cars being loaded to their capacity. Thus we are caught between the "Devil and the deep sea." The weights established by the Chicago Board of Trade some years ago could be revised, and a new weight agreed upon; and I think an agreement could be arrived at that would be acceptable to all concerned.

To reach this result would require the careful consideration of a committee of both shippers and receivers; and after an agreement had been reached, it would be advisable to have it as standing matter in the trade papers, and in time the readers, and there must be thousands of them, would become familiar with it and adopt the suggestion.

THE WESTBROOK ELEVATOR.

"Happy is the man," says the philosopher, "who is content to walk in the path his father made." It was the old-fashioned way; but nowadays the sons want to break away and blaze new paths, and in the majority of cases fail of permanent success. W. H. Westbrook of Paxton, Ill., however, agrees with the philosopher, and has but recently purchased from his father the elevator which is shown in the illustration herewith, which he will operate in the future.

The main building is 65 feet long by 30 feet

THE WAREHOUSE LAW.

When Judge Tuley of Chicago held, nearly two years ago, that it was against public policy for public warehousemen, having charge of the storage of grain for the public, to at the same time deal in grain, and granted an injunction restraining public warehousemen in Illinois from also dealing in grain, the warehousemen took an appeal to the Illinois Supreme Court. Pending the hearing of that appeal, they went also to the Legislature of Illinois and obtained from that body the present warehouse law, which legalizes a condition which Judge Tuley declared was against public policy and illegal in Illinois. After the new law had been made, the Supreme Court sustained Judge Tuley's ruling. Thus was created the anomalous condition of the highest court of appeal in Illinois ruling one way and the legislative branch of the government making laws legalizing a diametrically opposite principle.

When the Supreme Court's decision sustaining Judge Tuley was handed down, holding that "it is a firmly established rule that where one person (like a public warehouseman) occupies a relation in which he owes a duty to another, he shall not place himself in any position which will expose him to the temptation of acting contrary to that



WAREHOUSE PREMISES OF W. H. WESTBROOK AT PAXTON, ILL.

wide, and 40 feet high to the roof plates, or to the roof of the cupola, 68 feet. The driveway is 20x40 feet in size, and has the cobhouse directly overhead. The elevator is fitted with all the latest machinery, including the B. S. Constant dump and conveyors, corn sheller and corn cleaner, two stands of elevators and hopper scales. The machinery is operated by a 25-horse power electric motor. There are in all fourteen bins, with capacity of 50,000 bushels. The house is situated so that grain can be loaded directly into cars of either the Illinois Central or Lake Erie & Western railroads.

Paxton is situated right in the heart of the great corn belt of Illinois, and is a large and regular shipper. Mr. Westbrook has thus stepped into a fine, well-established business, and being located to take advantage of the offers of any of several first-class competing markets, he may truly congratulate himself on his fortunate situation and auspicious business future.

Grain exports from Baltimore are expected to be heavy this fall, there being, in addition to the 31 regular line steamers of the port, no less than 85 transient steamers waiting there or chartered for grain cargoes.

The latest hard luck story from Kansas is to the effect that the wild geese going South are destroying the growing wheat. The wheat is up about three inches; and in Saline and Ottawa counties more particularly, what wheat is not eaten by the geese is trampled down by them.

duty," the public warehousemen became in contempt of Judge Tuley. The Supreme Court, however, in its decision had made no mention of the present warehouse law, passed months before their decision was written; whereupon the warehousemen made a motion for a new trial. This motion the court a few days ago overruled, denying the petition and refusing a rehearing. The court, however, again failed to pass in any way upon the present warehouse laws, which runs counter to its expressed conception of what is public policy in this respect.

The future of the case, then, is in contempt proceeding before Judge Tuley against the warehousemen for failing to obey the mandate of his court to cease to act as dealers in grain, while also acting as public elevator men. With this purpose, President Carter of the Board of Trade, Chairman Rekert of the Warehouse Committee of the Board and H. S. Robbins, the Board's attorney, on October 29, visited the Attorney-General at Springfield to learn his plans as to enforcing Judge Tuley's decree by such proceeding. The Attorney-General replied that he had no mind to embarrass the elevator men by harsh proceedings, and authorized Mr. Robbins to see their attorneys and arrange for a test case, in which the validity and constitutionality of the present law would be raised.

It is believed this test case will be made up by the parties at once, and that it may therefore be in the hands of the Supreme Court within 90 days. How much time after February 1, say, the

conrt, will require to agree upon and file a decision, remains to be seen. Meantime the Legislatnre elected in Illinois on the 8th inst. will be appealed to to repeal the law.

It is said that "the elevator people are not solicitous at all about the case; for if the law should be pronounced unconstitutional, the result will be a wholesale turning of pnblic into private houses, with jnst about enough pnblic houses left to do the necessary pnblic business."

DEATH OF EDWARD A. CURTIS.

If the grim destroyer were a respecter of persons, he would certainly permit those to remain



THE LATE EDWARD A. CURTIS.

whose lives are a source of inspiration to the living. He makes no distinction, however, and on October 7 the many friends of Edward A. Curtis were pained to learn of his death, which took place at the home of his sister, Mrs. Rubins, at Morton Park, a suburb of Chicago.

Mr. Curtis was born at Buffalo, N. Y., on January 5, 1848. Almost his entire life was passed in connection with the grain business. He made his entrance into actual commercial life in Toledo, Ohio, with the firm of H. S. Walbridge & Co., and remained with them until he was offered and accepted a position as traveling representative with Milmine & Bodman of that city. An opportunity presented itself to engage in busness for himself, however, and he formed a partnership with George Watkins, under the firm name of Watkins, Curtis & Co. The firm did a successful business, but later the partnership was dissolved and Mr. Curtis continued the business on his own account.

He closed out his business some time afterward and went back to Milmine & Bodman. When this firm removed to Chicago, in 1882, he accompanied them and remained with them until he accepted a position as traveling representative for Pope & Lewis Company of Chicago. Later he held a similar position with John F. Barrett & Co., but left that firm to go with Barrett, Farnum & Co.

Mr. Curtis was obliged to give up active bnsiness life on January 1 on account of acute asthma and bronchitis, with which he was afflicted, and went to California, hoping for relief. He returned in May much benefited by the trip, but succumbed in October to pneumonia.

Mr. Curtis was an uncle of Harry W. Rubins, secretary of the Weare Commission Company of Chicago, and of Willis F. Rubins, connected with that company, and also of Charles C. Rubins, treasurer of the Chicago Railway Terminal Elevator

Company. He was a cousin of J. J. H. Brown of the firm of Brown & Co., vessel agents of Buffalo, N. Y.

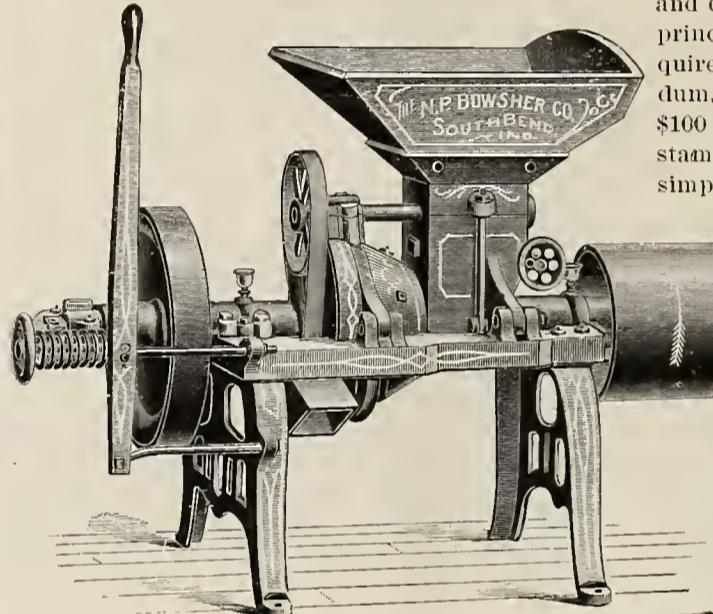
During his career as traveling representative, Mr. Curtis made many warm friends. Endowed with the spirit of perfect honesty, he was also courteous and warm hearted, and had always a pleasant word for his friends and acquaintances. He took great interest in the stdy of economics and had broad ideas upon the live industrial problems of the day and period. He was buried at Toledo, Ohio, beside his father and mother.

A BOWSHER FEED MILL AND ELEVATOR.

The well-known Bowsher Feed Mills are built in a variety of styles and sizes, adapted to every kind of ear corn crnshing and grinding of all kinds of grain, cotton seed, etc.

The style "A" mills, however, are adapted to the use of those who wish to grind only small grain or corn and cob after it has been first broken on a coarse crusher. The ent shows a No. 10A size mill, which occupies a floor space of 2½x5 feet. It requires from 16 to 25 horse power, and has a large capacity, the exact amount depending, of course, upon the nature of the material, its fineness, etc.

The second cut illnstrates the Bowsher Wagon-Box Elevator, which can be attached to any of their



THE BOWSHER FEED MILL, STYLE "A."

mills, as is also the case with their Sacking Elevator, which is quite similar. The convenience of this device is so apparent that further description or comment is unnecessary.

The N. P. Bowsher Co., South Bend, Ind., receive so many flattering testimonials that they naturally feel very enthnsiastic over their line of grinding mills. They have plenty of interesting printed matter concerning them, which they will be pleased to mail to all inqnrin millers.

Faist, Krause & Co., millers at Milwaukee, have leased elevators C and D from the Angus Smith Company for two years. The combined capacity is 400,000 bushels, which will give the lessees a total storage capacity in Milwaukee of over 1,500,000 bushels.

The farmers of Washington County, Arkansas, largely increased their wheat acreage this fall without special concert of action; but in Monroe County a public meeting was held, at which the farmers pledged themselves to plant enough wheat to insure a crop sufficient to keep the four mills of the county running.

A newspaper at Dows, Iowa, is responsible for this most remarkable yarn: "A farmer drove onto one of our grain dealer's scales with a load of oats Wednesday. The dealer offered 19½ cents per bushel, but the farmer said he only wanted 19 cents and would take no more." The reporter adds: "He got a game." They're easily satisfied all 'round in Iowa, it would seem.

BOARD OF TRADE TAXES.

The Acting Commissioner of Internal Revenue, G. W. Wilson, has ruled that grain deals by members of boards of trade, which are made in their offices or by the ordinary methods of transacting such business, are properly snbjct to tax; but he adds that "This construction of the provisions of the act of June 13, 1898, while it will apply without hesitation to the ordinary office where such bnsiness is conducted, will not apply to the casnal transactions which may occur on the sidewalks, street corners or other public places where they will occasionally happen."

The department has also ruled that board of trade men may transfer without extra tax trades on which the tax has once been paid.

Another vexatious ruling made during the past month is that puts and calls must pay the stamp tax jnst the same as regular trades made on the exchange, but that, when "action" is had on the privileges, no additional tax will be exacted.

The tax law tangle at Chicago became so acute that dnring the last week of October the Chicago Board of Trade appointed a committee to go to Washington to present the Board's case to the Internal Revenue Commissioner in person. The committee had an interview with the Commissioner; and, on returning home, November 1, said that the commissioner had reversed the former finding in regard to brokers who acted for commission men and delivered the memorandums of the sale to their principals. In snch cases the brokers will be required to affix a 10-cent stamp to their memorandum, but not to stamp it at the rate of 1 cent per \$100 of value. The bill of sale, of course, must be stamped at the latter rate. The brokers who have simply executed commission orders in the pit have



BOWSHER FEED MILL WITH ELEVATOR.

hitherto paid only their license fee tax, so that this decision adds to their burdens to the extent of a tax of ten cents on each trading card or memorandum. The committee furher reported that the commissioner hinted that certain interpretations of the law now bearing pretty heavily on the trade might be reversed.

The trade, however, is more vitally interested in the legal proceedings against the law itself than in these minor details of a tax which besets the Board of Trade main at every turn in the conduct of his business. And further, whether the legal proceedings succeed or fail in overturning the law, a movement will be made when Congress meets to have the law repealed at once, on the ground that the tax is a burden that should be removed, or at

least modified, since its effects under the rulings of the department are different and more onerous than the lawmakers intended, who aimed to tax merely the actual volume of property going through the exchanges; the final invoicees only, that is to say.

THE OTTO GAS ENGINE AT OMAHA.

One of the most conspicuous exhibits in the machinery building at the Trans-Mississippi Exposition at Omaha was that of the Otto Gas Engine Works. Located immediately adjoining the west entrance to the building, it had the advantage of a fine position, but the extent and character of the exhibit itself, which is shown in the accompanying picture of the display, several of the engines being in full motion, made it a leading attraction of that part of the building, and it was always surrounded by a crowd of interested visitors.

The large space granted the company was all occupied by all types of stationary engines made

LENDING BAGS TO FARMERS.

[A paper read by E. A. Grubbs of Greenville, Ohio, at the annual meeting of the Grain Dealers' Association, held at Chicago, Nov. 3, 1898.]

The practice of lending grain bags to farmers is one of the worst evils the grain dealer has to contend with, especially in the winter wheat states. To my personal knowledge, in the states of Ohio and Indiana, there have been repeated efforts made in a local way to try and stop the practice. In most instances very little has been accomplished, because the majority, who are not in favor of lending bags, allow one or two opposing dealers to rule. They go on from year to year, determined that next July no more bags will be loaned. Meetings are called, which lead to no results, because the opposing one is still with them.

About the only solution to this question is for each dealer to do the necessary repairing to his elevator for the handling of grain without the use of bags, and to quit lending them. If the majority who are in favor of this will stop, they will drive

by pointing to our large visible. In shutting out the influence of this factor in the market, the cost of bags will be more than made up to the farmer, by the increase in price of his grain. And it really looks to me that farmers ought to boycott the dealer who furnishes bags instead of the opposite.

THE DECATUR CORN SHOW.

During the last week of October a great corn carnival was held at Decatur, Ill. Contrary to precedent for October this year, the weather was fine and the carnival was really a great show. Decatur is located in the heart of one of the greatest corn belts of this country, and the city is famous more on account of its corn industries than for any other. For months both citizens of Decatur and farmers of Macon County had been making their preparations for this event; and when the show was complete, there were 418 exhibits of corn, for which money and special prizes by merchants were given.

The exhibits were located in the heart of the city in a large building which had been obtained to house them. In front of this was a tent a block long, with an ornate entrance, the exterior of which was decorated with corn in all varieties and shapes, and illuminated at night. Under this tent were exhibits of farming implements and the like. The corn millers had their own booths, where the superb blended flour for which Decatur is justly celebrated was baked into biscuits, bread, etc., and given to the visitors.

Then there were amusements galore for the people and free to all. There was also a corn parade. But the star feature of the week was the "husking bee"—a match between Mayor Taylor, Sheriff J. D. Nicholson and B. S. Tyler—"Bart" Tyler, secretary of the Illinois Grain Dealers' Association—which was witnessed by at least 15,000 people. A platform had been built, upon which the contestants with their seconds appeared in the native farmer regiments. At a given signal the shock of corn was cut, and the three went at it. Nobody ever before saw such husking, says the Review's historian of the great event. "If any rules had been laid down by which the match was to have been governed, they were lost track of entirely. In the excitement of the moment everybody on the platform, except the band, husked corn. The seconds, determined to see their principals did not get the worst of it, husked corn themselves as if their lives depended on it. If the principal happened to miss the box another fellow's second would nab the ear and put it where it would do his side the most good. In the excitement Town Clerk Cope, the referee, fell off the stand, but was assisted back again, and was in at the finish. Mayor Taylor burst his suspenders, and Sheriff Nicholson stuck his husking peg in his right thumb, after that it was easy to tell his corn from that of either of the others, for the thumb bled copiously. The contest lasted anywhere from three to ten minutes, and at its conclusion the boxes were inspected by the judges. A pumpkin was found in the Sheriff's box, but after that had been removed it was still seen that he had enough corn in the box to tie Mayor Taylor, who had a few ears more than Bart Tyler."

The judges then announced Tyler beaten and a tie between the Mayor and the Sheriff. Whereupon Tyler filed a protest: "The whole push had been bought up—everybody helped them and they even stole corn from my box." Not only that, but anticipating his sure defeat, the Mayor had induced the Union Iron Works to run in a lot of cast-iron corn on Tyler at the last moment. It was clearly a "put up job" to "down" the Secretary, who does make some pretensions to knowing corn when he sees it in the ear, and those who know Mayor Taylor and his relations with Bart Tyler know that he is capable de tout—even of the cast-iron corn!

The market for new corn opened at Henderson, Ky., October 27, at 25 cents. The elevator men there expect to handle 3,000,000 bushels.



FROM A PHOTOGRAPH OF THE OTTO GAS ENGINE WORKS' EXHIBIT AT OMAHA, NEBR.

by the Otto Company, comprising the standard stationary, the marine, the special electric type and two different combinations of engines, with pump and hoist. The space was brilliantly lit up by incandescent and arc lights, current for which was produced by their own 15-horse power special electric light engine, driving dynamo direct from flywheel. The horse power of the various sizes shown ranged from 3 to 40, the larger engines being equipped with self-starting devices. The exhibit was in charge of Mr. J. W. Marshall, General Agent for Kansas, Nebraska and South Dakota.

A merchant at Spangle, Wash., having offered as a prize a pair of shoes to the rancher hauling into town the largest load of wheat, the prize was won by a load of 193 bushels and 20 pounds (11,214 pounds), drawn by six horses and delivered to the Taewa Grain Company's warehouse.

The grain dealers and brokers of Norfolk, Va., have formed an organization known as the Norfolk Grain and Hay Association. Its objects are those of all local trade organizations. The officers elected for the ensuing year are: R. Henry Jones, chairman; Robert Wilson, treasurer; F. A. Bennett, secretary. These with C. W. Grandy and H. E. Owens constitute the board of managers. The Association has applied for a charter, and will incorporate under the state laws.

the few opposing ones out of bags or out of business. No one dealer in a neighborhood can furnish bags, and pay the same prices as his competitor, because necessarily the expense of keeping a sufficient supply of them adds largely to the expense of running an elevator.

Many dealers are afraid to give up the custom, thinking they will lose the trade of the farmers; and here is where this Association is of great benefit to both dealers and farmers, by bringing about concerted action. In sections where dealers have discontinued the practice, the farmer is well pleased, after once he has supplied himself with the necessary granaries and bags, to handle his own crop. He is independent. He is not under obligations to sell his grain to any certain dealer because he has borrowed his bags. It also saves his time in going after and taking back the bags he borrowed. His conscience also is clear, because the bags around his premises belong absolutely to him.

There is another idea possibly worth considering. As a rule, the farmer who has his own bags will not sell his entire crop when he threshes, but will haul when he can spare the time, when price suits, or he needs the money. By doing this it will not increase our visible supply so rapidly, nor give foreign markets such a good knowledge of our resources, or speculators a chance to depress values

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

WHERE FARMERS DON'T STORE.

Editor American Elevator and Grain Trade:—Farmers in this section sell their grain outright. They do not store at all, and never have.

Yours truly,
E. KIRCHNER.
Brooklyn, Ohio.

FORM FOR GRAIN CONTRACT.

Editor American Elevator and Grain Trade:—We inclose herewith sample form of our grain contract, which we find very satisfactory. We have had

above terms, for the reason that there is no money in it for elevator men.

Yours truly,
G. L. McLANE & CO.
Union Mills, Ind.

WILL STORE ON WRITTEN CONTRACT ONLY.

Editor American Elevator and Grain Trade:—I have taken but little grain on storage, and what I have has never been very satisfactory. I do not believe it good policy and do not intend to do much of it, unless on a written agreement with each party. My rates have been one-half cent a bushel a month.

Yours truly,
M. B. HELMER.
Fond du Lac, Wis.

STORING IS NOT POPULAR.

Editor American Elevator and Grain Trade:—The practice of storing farmers' grain is not very popular.

GRAIN CONTRACT.

I have this day sold to THE SIDELL GRAIN AND ELEVATOR CO..... bushels of good, sound, dry, merchantable.....at.....cents per bushel, to be delivered by me in good merchantable condition, free from snow, rain or rotten grain, within.....days, to them, at.....in their bins, cribs, cars or elevator, as they may direct.

I further state that I am the sole owner of said grain and that the same is now.....on the land known as the.....farm in.....Township,County, Illinois, and that same is free from, and clear of, all liens and encumbrances whatsoever.

I have received as part payment of the grain in this contract.....dollars.

If I do not deliver all of this grain within the stated time, then it is understood that the purchaser has the choice to refuse the grain at the above price or give me further time for delivery.

We agree to receive and pay for the grain on the above terms.

THE SIDELL GRAIN AND ELEVATOR COMPANY,
By.....

A SATISFACTORY FORM OF GRAIN CONTRACT.

this contract made from the various ones which have been published in your valuable paper.

Yours truly,
THE SIDELL GRAIN & ELEVATOR CO.,
Sidell, Ill. By J. H. Herron.

WILL BUILD AN ELEVATOR.

Editor American Elevator and Grain Trade:—Enclosed find \$1.00, for which please send me your paper, commencing with the October number.

I am going to build a new elevator.

Richardson & Hopkins are also going to make extensive repairs on their elevator.

Respectfully,
J. B. CARSON.
Perdne, Ford Co., Ill.

NEW ILLINOIS ELEVATOR.

Editor American Elevator and Grain Trade:—In remitting our subscription for the "American Elevator and Grain Trade" for one year, we wish to say that we have erected an elevator at Emden instead of Delavan, as stated in your last number. It will have a capacity of about 30,000 bushels and will be ready for handling grain December 1.

Yours truly,
H. VAN BEUNING & CO.
Emden, Ill.

STORING CREATES DISSATISFACTION.

Editor American Elevator and Grain Trade:—Our farmers generally do not store grain here. Whenever they do, we charge them $\frac{1}{2}$ a cent per month, making no allowance for shrinkage.

We do not believe it good policy to have farmers store grain with elevators, there being general dissatisfaction on the part of the farmer when his hopes are not realized in regard to prices.

Yours truly,
MILLER & CO.
Hanover, Kans.

NO MONEY IN STORING.

Editor American Elevator and Grain Trade:—As a rule grain is not taken in store very much through this vicinity by elevator people. The reason for this is, elevators generally are small and there is not much capacity for taking care of stored grain. We have stored considerable for farmers this fall. The charges are generally 30 days free, and one-half cent per bushel per month thereafter. We do not know of any elevator man in this country ever taking any allowance for shrinkage on grain. We do not think it good policy to store grain, even on

lar in this vicinity, the bulk of it being sold as hauled to market. With but few exceptions, the stored grain is sold within ninety days.

Rate of storage on oats is one-half cent per bushel per month; if sold within thirty days, free.

Yours truly,
H. G. NORTHEY.
Alexauder, Iowa.

FARMERS SHOULD CARRY THEIR OWN INSURANCE.

Editor American Elevator and Grain Trade:—Farmers in this vicinity store a very small percentage of their grain in country elevators. We give 30 days' storage free. After that we charge $\frac{1}{2}$ cent per bushel per month. No allowance is made for shrinkage. We believe it is all right to store farmers' grain if it is in good condition and the farmers carry their own insurance.

Yours truly,
MCLEOD BROS.
Marietta, Kans.

COMPETES WITH SCALPERS.

Editor American Elevator and Grain Trade:—I have been reading the pages of your journal devoted to correspondents, with much interest. Although I sell a greater portion of my grain on track, I think it would be much better if track bids were abolished. When markets are going up there is an abundant supply of track bidders, but on a declining market they drop out, like the scalpers or scoop-shovel buyers, who buy from farmers. I have a few of them to compete with here.

Yours respectfully,
W. J. GRAHAM.
Nassau, Iowa.

A BAD PRACTICE FOR DEALER AND FARMER.

Editor American Elevator and Grain Trade:—The custom of grain dealers taking farmers' grain on storage is general in this vicinity. The grain is stored free for the first 30 days, and then a charge of one-half a cent per bushel per month is charged.

There is no allowance made for shrinkage. The grain buyer pays the farmer for as many bushels as were weighed in when the grain was received for storage.

I think the practice is a bad one both for the grain dealer and the farmer. When the dealer's storage capacity is all taken up with stored grain, he is forced to ship and sell it, thus taking the chance of having to pay the farmer more than he

received for it. The farmer as a rule sells when the price is lower than when he placed his grain in store, and he has to pay a storage charge also.

Yours truly,
H. C. HALL.
Paxton, Ill.

THE ELEVATOR MAN A PHILANTHROPIST.

Editor American Elevator and Grain Trade:—I am sorry to say that the elevators in this part of Indiana are run on the free and easy plan, that is, the farmers do most of the dictating, and that means that the elevator man stores the wheat free and stands all losses from shrinkage, etc.

I think it very poor policy to store wheat for less than one cent per bushel per month. Your house gets full of other people's wheat and you cannot buy it at market price, or safely move it.

Yours truly,
W. E. HURD.
Logansport, Ind.

SIXTY DAYS' FREE STORAGE.

Editor American Elevator and Grain Trade:—The practice of taking farmers' grain on storage is quite general among grain men hereabouts, we being the only exception, we believe. The storage rates vary, but usually the first 60 days' storage is given free and then $\frac{1}{4}$ of a cent per bushel per month is charged until sold.

By observation we conclude that it usually leads to trouble in the matter of settlements, and for this and other reasons we object to the plan.

Yours truly,
HAYWARD BROS.
Cropsey, Ill.

NEW ELEVATOR FIRM.

Editor American Elevator and Grain Trade:—The undersigned firm has purchased from A. K. Knapp of Minooka, Ill., the line of five elevators, located at Ottawa, Utica, Serena, South Ottawa and Buffalo Rock, and took possession November 1.

J. N. and G. C. Dunaway were formerly extensive farmers and stock men, while A. J. Newell has been connected with Mr. Knapp in the grain business for twenty-two years. For the past four years he has been the manager of the above line.

Yours truly,
Ottawa, Ill. DUNAWAY, NEWELL & CO.

STORING RETURNS "MORE KICKS THAN HALFPENCE."

Editor American Elevator and Grain Trade:—Farmers in this section have never stored more than a small portion of their grain with local elevators, and for the past three years, including this year, they have had little or none to store.

What little experience I have had tends to make me adverse to it, as, when it comes to the wind-up, the storage looks big to the farmer, especially if he has lost by holding, which is apt to be the case, and the elevator man "gets more kicks than halfpence" out of it.

He can stick for his storage and create bad feeling or he can waive it and furnish it for nothing, in which case he avoids both kicks and halfpence. My experience is that storing tends to drive grain to one's competitors and is therefore more profitable for them.

Yours truly,
E. W. McCLURE.
Hull, Ill.

DISCOURSES STORING.

Editor American Elevator and Grain Trade:—The practice of taking farmers' grain on storage is only exceptional here. In case the price has dropped so suddenly that the farmer is not aware of it, we sometimes store his load for a short time, say two to four weeks, but even in this case he must be an intimate friend or good customer of ours and we must have plenty of room to spare, otherwise under no circumstances will we store grain for the farmer.

No storage nor allowance for shrinkage is charged, but generally when the farmer disposes of his grain we buy it $\frac{1}{2}$ -cent a bushel below its market value, to make good the storage and shrinkage.

We think it poor policy to hold grain for farmers when they have granaries of their own, as they have in our vicinity. In the first place farmers will only pay a small storage fee, and if we should

store it and probably advance them some money on it, they would always hold it for higher prices. Even if the prices are high in our judgment, the farmer always thinks they will go higher and will hold his stuff.

Yours truly, GREVE & IVERSEN.
New Holstein, Wis.

FARMERS LOSE BY STORING.

Editor American Elevator and Grain Trade:—Elevator men hereabouts store farmers' grain only to a small extent. The practice is exceptional. When stored, $\frac{1}{2}$ cent a bushel per month is charged. Elevator men stand the shrinkage, while the farmer pays the insurance.

We store corn for the storage. Do not believe it is good policy for farmers to store grain. Nine times out of ten they pay the storage and take less for their grain. We cannot see that it hurts our business.

Yours truly NORTON & CO.,
Tallula, Ill. E. F. Norton.

COMPETITION MAKES STORAGE UNPROFITABLE.

Editor American Elevator and Grain Trade:—All elevator men in this vicinity take farmers' grain on storage. It is stored free for the first 30 days, and after that $\frac{1}{2}$ cent per bushel per month is charged. The warehouseman must keep it insured, and no deduction is made for shrinkage. We would be in favor of the storage custom if a remunerative rate could be secured, but where the elevator is of small capacity it is suicidal to attempt storing. The large elevators compete with each other and reduce charges below a profitable basis.

Yours truly, McFADDEN & CO.
Havana, Ill.

STORING IS A TEMPTATION TO SPECULATE.

Editor American Elevator and Grain Trade:—Storing of grain for farmers by elevator men is one of the things of the past. It is generally very unsatisfactory to the farmer, and a temptation to the elevator man to speculate with it. I advise farmers that want to hold grain to keep it at home, and then they can do as they please with it. The farmer for some reason is always expecting the markets to advance, and will not sell as a general thing until it begins to weaken. Then the buyer is not as anxious to buy it. So far as I am concerned, I try to discourage the practice as much as possible.

Yours truly, JAS. MUNNS & SON.
Corning, Iowa.

STORING IS A SOURCE OF DISAGREEMENTS WITH FARMERS.

Editor American Elevator and Grain Trade:—The practice of farmers storing in elevators has not been very general here. We do not think it good policy as it is liable to cause trouble between the farmer and grain man on account of shortage, or the wheat delivered not being the same grade as the farmer thinks that he put in the elevator. Every time you make an enemy of a farmer you get published among his neighbors whether you are in the right or not, and you have no chance to plead your cause and are as a general rule condemned. As we have no public inspectors here, think it a bad idea to store grain for farmers.

Yours truly, W. M. NEWTON & CO.
South Enid, O. T.

SCOOP-SHOVEL MEN DRIVEN FROM THE FIELD.

Editor American Elevator and Grain Trade:—Our Grain Dealers' Association of Oklahoma and Indian Territories has run up against the courts here, and so we are making very little noise at present until we see where we are at.

I will say, however, that our association is in good shape, and is accomplishing the work it was intended to do. All regular dealers in the territory are members. We have built elevators at all grain markets and the scoop-shovel man has been driven from the field. Exporters and commission houses have aided us by refusing to do business with anyone not a member of the Association.

This station has eight elevators and will handle three million bushels of wheat this season. About one-third of the crop has been marketed. The ele-

vators here are now carrying 150,000 bushels of wheat, owing to the scarcity of cars. All of the wheat here goes South, either to the mills in Texas or to Galveston for export.

Yours truly, W. R. BINKLEY.
Kingfisher, Okla.

NORWAY FIRM WANTS QUOTATIONS

Editor American Elevator and Grain Trade:—Will you please send me the "American Miller" and also the "American Elevator and Grain Trade" for one year.

A grain company is about to be established here in Christiania for the purpose of handling both spring and winter wheat (mostly spring) to the amount of about 100,000 bushels per month. Would like if you can place us in connection with some grain company that is exporting both spring and winter wheat, delivered c. i. f. New York or Christiania. Would like to have a price list sent to us twice a week by mail.

Yours truly, M. O. NELSON.
Care Gulbrauson & Thomle, Christiania, Norway.

STORING LITTLE PRACTICED IN KANSAS.

Editor American Elevator and Grain Trade:—It is not usually customary for elevator men in this state to take farmers' grain on storage. They do to a certain extent, and usually charge one cent per bushel per month, and they stand the shrinkage. We do not believe it is good policy either for the farmer or the elevator man. Most elevator men receiving grain on storage are inclined to speculate upon it, if in no other way, simply by shipping the grain out and using the money. The farmer can seldom afford to pay the charge exacted, and he can certainly not afford to run the risk of leaving his grain with anyone where it is a question whether he will be able to get it back on demand, or in lieu of it, the market value.

Yours truly, J. G. MAXWELL & CO.
McPherson, Kans.

THIRTY DAYS' STORAGE FREE.

Editor American Elevator and Grain Trade:—In regard to the matter of storage, it is our practice to take wheat in store as soon after August 1 as the wheat is in condition for storage. We charge half a cent per bushel for every month's storage, but if sold within thirty days we make no charge for storage.

We believe this to be the general practice in this section. We do not encourage storage, but take whatever comes that is in proper condition. We see no reason why country elevators should not take wheat in store the same as larger elevators in the cities.

We are not fully satisfied as to how much we lose by the actual shrinkage of the grain. If any of your readers have statistics on this point resulting from actual tests, we would be much obliged if they would post us on the subject through your journal.

Yours respectfully, H. M. OLNEY.
Hartford, Mich.

STRONGLY OPPOSED TO STORING.

Editor American Elevator and Grain Trade:—The practice of storing grain for farmers is general in this section, and there are but very few but what do it to some extent.

If any storage charge is made the farmers seem to think you are robbing them. We settle on original weights.

As country elevators are small, we have to ship out and buy futures on the board of trade to protect ourselves, so we have to invest money and get no thanks for our accommodations.

I am strongly against the storing practice, especially as the farmers think their wheat is wheat as soon as it is stored, no matter what it tests when taken in. They want the top price, thus causing us much trouble in settling with them.

We buy wheat on a basis of 59 pounds to the bushel, with one cent off for each pound below that test. If a farmer's wheat tests 55 pounds we take 4 cents a bushel off, but when they have stored they want the 59-pound price regardless of

test and kick if they do not get it. For this reason I am very much against storing at all.

Respectfully, E. C. NORTHWAY.
Ong, Nebr.

STORING IS LARGELY A QUESTION OF CAPACITY.

Editor American Elevator and Grain Trade:—It is customary for all elevators in this section to accept farmers' grain on storage. The storage rates range from nothing to one cent per bushel per month, usually one-half cent per bushel for wheat.

Five pounds per 1,000 is the regular deduction for shrinkage.

If an elevator has empty bins not likely to be needed, we see no good reason why they should not be rented. Good business principles would seem to demand this, the same as with vacant storerooms or other property.

Yours very truly,
IOWA PARK LUMBER & GRAIN CO.,
E. R. Kolp, Pres't.
Iowa Park, Texas.

A SUICIDAL POLICY FOR THE COUNTRY ELEVATOR.

Editor American Elevator and Grain Trade:—It is not generally customary to take farmers' grain on storage in this vicinity. When it is done, free storage is generally given from 10 to 30 days, and a charge of $\frac{1}{2}$ -cent per bushel made for each month thereafter, with no deduction for shrinkage.

I think the policy suicidal for the country elevator man. As a rule, farmers that store thrash from the shock or soon after harvest, when wheat is heaviest and usually the cheapest. Very few country dealers have room to hold the grain and so ship it out and sell at market price. The smart farmer takes advantage of the first big advance that comes and the elevator man is left.

I never store except in special bin, where the identical wheat remains until sold.

Yours truly, E. S. GREENLEAF.
Jacksonville, Ill.

FARMERS WEARY OF STORING.

Editor American Elevator and Grain Trade:—The farmers here have become very weary of storing grain and most of them prefer to sell outright. I am unable to say just what arrangement was made about shrinkage, as I have done no storing, nor do I wish to. I have a number of customers who have tried storing, and none of them wish to try it over, as they claim it was anything but profitable for them.

Grain is usually stored here for a short time without any charge, and after that time expires one-half cent per bushel is charged for each month or fraction, and contracts are so made that it will not pay the farmer to sell the grain to other parties. So far I have not heard a farmer say that he intended to store this fall, and don't think many will do so.

Respectfully yours, ROBERT IVENS.
Persia, Iowa.

TRACK BIDDERS AND THE RAILROADS.

Editor American Elevator and Grain Trade:—I have read with considerable interest the articles in your October number relative to track bids as compared with consignments. Since I first entered the grain trade, in 1877, I have watched the evolution with a great deal of interest. Not until the passage of the Inter-State Commerce Law in 1887 did track bidding become general, and then only from the fact that railroad companies began making special rates for individuals or companies, instead of granting favors indiscriminately to shippers at competing points, and to-day the most inviting bids are those sent out by elevator people or their representatives.

Whenever a reduction in freight rates is proposed the bids are most numerous and relatively higher than current market prices. This is made so from the fact that the public (be damned) are not so close to the magnates as are the few favored ones who send out those strong bids.

If shippers will wire their commission houses when track bids are strongest, they will be able to realize as much or more and at the same time be

assured of all benefits, so far as inspection and weights are concerned. The interests of the shipper and receiver are identical, while the interests of the shipper and track bidder are inimical.

Very truly yours, A. RHEINSTROM,
Chicago.

NO PROFIT IN STORING GRAIN.

Editor American Elevator and Grain Trade:—Owing to competition we are compelled to store the farmer's grain as long as he wants to leave it, and in all cases, excepting amounts of over 2,000 bushels, we pay the insurance. In so doing we must lose the insurance, stand the shrinkage on the grain, and in many ways inconvenience ourselves.

I am very much against storing grain, even when a storage charge is made, for the shrinkage and insurance in most cases amount to more than the storage charge. Besides, one is more or less handicapped in handling grain with a crowded house, and the farmers seem to think they ought to be able to get as much money as their grain will come to, and for as long as they want it, if they have grain in store.

For these reasons we are not in favor of storing large quantities of grain.

Yours truly, F. S. LARISON.
El Paso, Ill.

TRACK-BIDDING IS FAVORABLE TO REGULAR DEALERS.

Editor American Elevator and Grain Trade:—In answer to the question, "Shall the Custom of Track-Bidding be Abolished?" I will endeavor to give you my views, and I think they will coincide with the ideas of a majority of the country dealers.

I am decidedly in favor of the present custom of track-bidding, because track buyers, as a rule, can be persuaded not to bid farmers or "scalpers." If a country dealer buys 5,000 bushels of grain to-day he can immediately sell it for ten or twenty days' shipment, and the only chance he takes is on the weights and inspection. We usually get as good weights and inspection on track sales as we do on grain consigned. If the track buyer sells the future against his purchases, it will have no more effect on the market than if the hedging was done by the country dealers. If track-bidding was done away with the irregular fellows would be placed on an equal footing with the regular dealers, who have an investment, and the trade in a very short time would become thoroughly demoralized, and the consequence would be, commission houses would have nothing but "scalpers" to deal with.

A dealer may figure on larger margins when he consigns his grain, but my experience is he never gets it. When track-bidding is done away with we will all be compelled to be "scalpers."

Yours truly, G. A. STIBBENS.
Coburg, Iowa.

MINNESOTA STORAGE CHARGES.

Editor American Elevator and Grain Trade:—The practice of storing grain for farmers is quite general here. The rate charged is, in most cases, that fixed by the state. No allowance is made for shrinkage. I believe it is all right for elevators to take grain in store, provided they do so in strict compliance with the terms of the receipt which I use, the body of which reads as follows:

C. W. GILLAM'S ELEVATOR

No. Windom, Minn. 189

Received in store of bushels No. Wheat, which amount and same quality by grade will be delivered to the owner of this receipt, or his order, as provided by law and the rules of the Railroad and Warehouse Commission of Minnesota, upon surrender thereof and payment of lawful charges.

"The maximum charge for receiving grain, insuring, handling and storing the same fifteen days and delivering shall be two cents per bushel. Storage charges after the first fifteen days, one-half cent per bushel for each fifteen days or part thereof for the first three months; for storage after the first three months charges shall not exceed one-half cent per bushel for thirty days or part thereof."

The grain is insured for the benefit of the owner,
C. W. GILLAM,
By.....

We think it good policy to steer clear of the elevator man and also of the elevator that gives free storage as long as the farmers want it, because such business policy can only succeed for a short time. Where farmers wish to store their grain and

are willing to pay what it is worth for handling the business, I think it is all right.

Respectfully, C. W. GILLAM.
Windom, Minn.

STORAGE AGREEMENTS END UNSATISFACTORILY.

Editor American Elevator and Grain Trade:—I think that as a rule elevator men in this section do not store much grain for farmers, but rather discourage the practice, for the reason that it is generally unsatisfactory and without profit.

I think the talk is generally for one-half a cent a bushel per month, but it generally follows that the grain man is anxious to get the grain out of store and pays full market price and gets no storage.

Furthermore, if the farmer has his grain in his own granary and you cannot give him what he thinks it is worth, and what he hears he can get at some other point, he is at liberty to take it where he likes and there is no unfairness to complain of. On the other hand, he is quite likely to get an idea (often from your competitor) that you are not giving him all it is worth, and as it is not always practicable or convenient to give him out his grain, as a compromise you pay him more than it is worth.

This is my experience and I avoid storing as far as I can.

Yours truly, N. W. HOAG.
Delavan, Wis.

FARMERS RARELY CHARGED FOR STORAGE.

Editor American Elevator and Grain Trade:—All elevator men in this vicinity take farmers' grain on storage. The general rules are, in this vicinity, for the warehousemen to accept grain in store, insurance guaranteed, thirty days' storage free, after thirty days one-half cent per bushel per month or fraction thereof, until grain is sold. There is no rule followed for making allowance for shrinkage. The elevator man pays his own insurance, and the practice is greatly abused.

There is not one case out of fifty where the farmer is charged for storage, even if grain has been found in elevator after sixty or ninety days, and if storage is charged it is generally unsatisfactory to the farmer. We do not believe that it is good policy for elevator men to take farmers' grain in on store. Our objection is that, as a rule, the farmer loses money on his grain and the grain man is usually out his storage room and insurance, and no one satisfied in the end.

We think the very best policy for farmers would be to hold their own grain until ready to sell, and then either sell for prompt delivery or immediately after grain is delivered to elevator man. In this way there would be less expense and annoyance to the elevator man and better satisfaction to the farmer, for he would know exactly what he is doing as soon as grain is delivered.

Yours truly, C. W. HARTLEY,
Goodland, Ind. By A. E. Hartley, Mgr.

STORAGE PRACTICES IN TEXAS.

Editor American Elevator and Grain Trade:—Relative to storage on grain, world say that as yet we have very few elevators in Texas. The grain is nearly all handled in warehouses. Of course, the mills have elevators, but they take no grain on storage. The warehousemen store some grain for farmers, but to a very limited extent. The grain as a general thing, and especially oats, are sold at thrashing time, as very few farmers have any storage at home; hence the grain dealers at different stations buy it and store it in their warehouses, and hold until the demand for seed purposes comes.

When grain is stored by warehousemen in this way, they charge for wheat 1 cent per bushel per month, and for oats $\frac{1}{2}$ cent per month, which covers insurance and storage. While we do not approve of this storage business, we are forced to store some grain in competition with other dealers. We have warehouses at nearly every point of importance in North Texas. Frequently we can't buy the grain at satisfactory prices, and then we can receive a very good rent for our houses by storing at above rates.

There is a very large elevator at Dallas, owned

by the Arbuckle Bros., that is not connected with any mill, and makes a regular business of storing grain of all kinds. I do not think, though, that they have ever received enough patronage to make it a paying investment.

Yours truly, J. P. HARRISON.
Sherman, Texas.

SUGGESTED PLAN OF STORAGE.

Editor American Elevator and Grain Trade:—It is an exception for a farmer to store grain in an elevator. All the farmers in this section have good granaries and it is cheaper for them to store at home.

We have stored for farmers in a few instances, at the regular rates charged in Toledo, viz.: One-half cent for elevating and storing ten days and one-quarter of a cent for each ten days additional. We did not make any allowance for shrinkage, but might have to if the practice was general.

We do not see that there could be any objection to taking in grain to store if the dealer has room as his house would be earning him money, and if crowded he could ship it to some terminal where the charges would be the same. While it would not be earning him any storage, it would be graded and he would know just what grade to pay for when the farmer wished to sell. He could also sell the moment he purchased from the farmer, and so would not have to run any risk whatever.

Yours respectfully,
Onsted, Mich. ONSTED & WEMPLE.

FAVORS DISCONTINUANCE OF STORAGE PRACTICE.

Editor American Elevator and Grain Trade:—We regret to say that the custom of storing grain is quite general among elevator men in Central Nebraska. It has been the practice to make no charge for the first thirty days' storage, and a charge of one-half cent per bushel per month thereafter, giving the farmer the privilege of selling at any time at the market price.

As far as our experience goes, we do not believe that this is good policy. It has almost always happened, when we have stored grain for farmers, that when they came to sell the market was either lower or the storage charges had offset any advance, and they were generally dissatisfied with the returns, while we had to stand the shrinkage and try and pacify them.

Besides this, we do not believe it is good business, as the deal is altogether too one sided, and places the elevator man who stores at the mercy of his competitor who does not store, should he be inclined to force the market.

We are heartily in favor of a movement tending to the discontinuance of this practice.

Yours truly, GEO. S. HAYES & CO.
Hastings, Nebr.

REASONS WHY STORING DON'T PAY.

Editor American Elevator and Grain Trade:—The practice of storing grain for farmers is quite general in this section. The rate charged varies from $\frac{1}{4}$ to $\frac{1}{2}$ cent per month, or one cent for as long as they want to store it. In some cases the elevator man pays the insurance, and as a general thing there is no allowance for shrinkage.

It does not seem to be a matter of profit the elevator man is looking after, but to get the grain under his control so as to prevent his neighbor from getting it. Some will hold it two or three months and then pay the farmer full market price for the number of bushels weighed in, charging nothing for storage or insurance.

I do not think the policy a good one for elevator men, and it should be discouraged, for the following reasons: If the elevator man's house gets full of stored grain he is cramped for room to handle his own, thus making the labor and cost of handling it more than the amount he receives for storage, if he gets any at all, which is doubtful in a great many cases. The heavy load damages his building and gets his machinery out of line. This causes annoyance and expense. Again, the grain is liable to heat, and then he has trouble with his customers, which spreads to their friends and a loss of business results. This will probably prove more

than he would get for storage, even if he should charge and collect what he considers a good price for it. In short, it does not pay country elevator men to store grain, but so long as some practice it, others in the same locality must.

Yours truly,
D. HUNTER.
Farragut, Iowa.

HAVE NO RULE AS TO STORAGE.

Editor American Elevator and Grain Trade:—Dealers through our vicinity have no rule in regard to the storage of farmers' grain. The practice is general and I have known dealers to store grain six to twelve months without any charge, thus standing all shrinkage and paying carrying charges.

There are times when a dealer can take grain on storage and make money out of it, but they are very few as compared with the times he will lose. Two-thirds of the farmers that store grain expect you to advance them from one-half to two-thirds of what it is worth, and then think, when they sell it, that they are not getting what it is worth, because they have it in store, while you, at the same time, may be giving them more than it is really worth in order to get it off your hands. Our charge is $\frac{1}{2}$ cent a month after the first sixty days.

We are regular dealers at Cullom, Manhattan and Ritchey, Ill., having just completed a 40,000-bushel elevator at Manhattan, and have just made arrangements to build another at Ritchey.

Yours truly,
HARGREAVES BROS.
Cullom, Ill.

NEW ORLEANS "THE WIZARD OF THE SOUTH."

Editor American Elevator and Grain Trade:—That New Orleans is the foremost Southern city is acknowledged by all who are familiar with her great progress and enterprising spirit. That she has been the architect of her own fortunes is attested by the story of her wonderful advances in recent years. In business sagacity she is the wizard of the South, and in forward movements and well-known achievements she has been the giant of Southern cities. As a seaport she has no less than ten miles of river front in wharves, and fully twenty miles of available wharf space, with an average water depth sufficient for vessels of the largest tonnage to enter. These advantages and facilities have made this city a wholesale market for an export trade whose growth and activity are being jealously watched by other seaport cities.

With the construction of the large elevators in the past few years the grain exports from this market have increased with such rapid strides as to make the distribution phenomenal. The aim of New Orleans is to become a free port, and we hope for this at an early day, but the chances are that we can, even at present, go much further in the matter of a reduction in rates than any of our Atlantic competitors.

Trade always seeks the shortest and cheapest route, and that route for Western grain and produce is through New Orleans.

Very respectfully,
FRANCIS P. SALA.
New Orleans, La.

TWO WAYS OF STORING FOR FARMERS.

Editor American Elevator and Grain Trade:—I think all the elevators in this section are open to store grain if so desired by the farmer. I cannot say what the general terms are, but the following is a copy of my storage receipt, and I suppose others are very similar:

Dunlap, Iowa, Oct. 22, 1898.
Received of Richard Doe 200 bushels of No. 3 spring wheat to store, subject to the following conditions: The first 15 days free; each succeeding 15 days or fraction thereof, $\frac{1}{2}$ cent per bushel.

The above grain shall be paid for, upon presentation of this receipt by the owner, at the market price for grain of like grade on day of sale, less storage charges.

If above grain shall be demanded, same shall be delivered to owner upon payment of storage and an additional charge of 2 cents per bushel for handling, and if cleaned, a reasonable shrinkage shall be allowed. Permission is given by owner to mix this grain with grain of like kind and grade.

Signed.....

My experience has been that the farmer who wants to store usually changes his mind about the time the grain is all delivered and sells it, but if not then, before the 15 days are up. As a rule I

don't pay any attention to stored stuff separate, shipping out and replacing from day to day.

I think that the grain dealer who will store a farmer's grain without recompense is badly in need of "fixing," and in my opinion he will get "fixed" sooner or later. Make the storage and penalty of demanding grain high enough so you can afford to store and you will not be troubled by getting more storage grain than you can handle, but if stored for nothing, you could have a house full of grain and pay insurance on it the year around.

Yours truly,
M. W. LEE.
Dunlap, Iowa.

GALVESTON WEIGHTS.

A meeting of the executive committee of the Texas Grain Dealers' Association was held at Fort Worth November 7 to take action upon the matter of terminal weights at Galveston, the export outlet of Texas. Recently shippers have been complaining of shortages claimed. A canvass of the experience had by six of the larger shippers of corn in the state this season developed the fact that the returns show almost every car short. And some of these shortages have been excessive.

Of the committee there were present Mr. J. P. Harrison of Sherman, president; Mr. Early of Waco and Mr. Gibbs of Clifton, first and second vice-presidents respectively; Mr. Werkelser of Temple; Mr. Crenshaw, the secretary; Mr. Andrews, the treasurer; Mr. C. F. Gribble of Sherman and Mr. A. S. Lewis of Weatherford were the only absent members. The conference was a private one. At its conclusion Mr. Harrison gave to the press the following statement (in part) of the plans of the committee:

"The committee decided to send Mr. Crenshaw to Galveston. He leaves to-night (7th). He will devote himself to a rigid investigation of the methods of public weights at Galveston. If he finds the system at fault the Association will make a strenuous fight to have this fault corrected. And, candidly, I believe the Galveston weights to be at fault. In this connection, however, I wish to say that the Association is equally determined to correct this evil, if it is ascertained that the fault is in whole or in part with the interior shippers. If so, we will know what to do. The executive committee will act promptly after receiving Mr. Crenshaw's report. We are hopeful that we can find a remedy without delay. If, as I intimated before, the fault should be located at Galveston, we shall either correct it, refuse to ship there or continue shipping with this advantage—we will deliberately ship to a market where we know the weights to be unsatisfactory. It is hardly likely that the last named course will be pursued. We feel sure that the Galveston Chamber of Commerce will heartily co-operate with the Association in correcting the evil complained of if, as implied, the fault is to be found with the Galveston elevators. It might be well enough, however, for every shipper to carefully examine the condition of every car before loading. Look to the grain doors. See that all cracks are sealed. In this connection I wish to say that we are to-day forwarding the following card to every member of the Association:

"Owing to numerous complaints coming to our secretary of short weights on corn shipped to Galveston for export, the executive committee convened in this city to-day pursuant to a recent call from our president, and it was decided to at once send our secretary to Galveston to thoroughly investigate their weight system, etc., and to look after the weighing of members' shipments only. He will remain there as long as deemed necessary by the committee. Advise him promptly of all direct shipments to the elevator, giving car number, initials and weight, so that he may look after same. You are cautioned to be very careful with your weights and especially to see that cars and grain doors are in good order before 'loading.' "

President Harrison added: "Incidentally I would say that our insurance committee is hot on the trail after a reduction in grain insurance rates. We believe that justice is with us, and feel sure that we will ultimately secure the reduction we seek. Of

course our petitions request that this reduction apply only to those dealers who are members of the Association."

SHORTAGES IN GRAIN SHIPMENTS.

[An address delivered by N. S. Beale, of Tama, Iowa, before the meeting of the Grain Dealers' National Association, held at Chicago, Nov. 3, 1898.]

When our secretary wrote to me asking if I would give a talk on "Shortages in Grain Shipments" I replied, "yes, I would cheerfully give our experience in that matter," and I hope the question will not be dropped until some effective remedy has been applied. During the period from July 1, 1897, to January 14, 1898 (at which latter date we were burned out), we weighed and shipped to Chicago and Milwaukee ninety-one cars, and to the Davenport Sugar Refining Company, Davenport, twenty cars of grain. The weighing was done on a covered railroad track scale located on a side track adjacent to the elevator, under the supervision of but one man who had no interest further than an employe, and seldom knew to what point the grain was to be shipped. Further the car was not moved from the time the tare was taken until after the grain was loaded and the car again weighed.

Most of you, no doubt, read the article entitled, "Shortages of an Iowa Shipper," written by myself and printed in the "American Elevator and Grain Trade" in the February number, 1898. The article shows the shortages in Chicago and Milwaukee to be about the same, while at Davenport the shortage is very much less.

[To save space we have omitted this article, which the reader will find in his files.]

By comparing all the grain we weighed we find the ninety-one ears to Chicago and Milwaukee weighed at point of shipment 3,176,000 pounds, and weighed out 3,125,000 pounds, a net loss of 42,170 pounds, equal to one and one-third per cent. The average weight of the ears of grain was 34,900 and a loss of one and one-third per cent equals 465 pounds to each car, while in the article just read the shortage at Davenport averaged less than 100 pounds to the car.

During the year 1897 Chicago alone received over twenty-eight millions of wheat, nearly 117 millions of corn, 118 millions of oats, nearly four millions of rye, and over seventeen millions of barley. If we estimate the price of wheat at sixty cents, corn twenty-five, oats twenty-two, rye forty and barley thirty, which figures are surely a low estimate of the price of the grain in the country, the value of the 283,505,593 bushels of grain which was shipped to Chicago is eighty millions of dollars and one and one-third per cent of this amount is 1,064,000 dollars. Gentlemen, I believe if the shrinkage was one-third of the above loss it would be large even then, which would amount to \$354,000—a difference of \$709,000 from the present amount. Compare this with a report published in the "American Elevator and Grain Trade" of a terminal elevator at Buffalo, where the annual statement disclosed a gain instead of a loss.

We also find that thirty cents per bushel is the average price paid according to figures in our estimates. One and one-third per cent of thirty cents equals two-fifths cent per bushel—nearly as much as the commission. We selected about a dozen cars in which the shortages were the greatest and made as many different claims to the railway company for the losses sustained. The railway company's answer in nearly every case stated that the cars arrived at destination in good condition, and the seals showing the car had not been opened, therefore they could not see why they should pay this loss. We cannot see that the railway company's logic is not good in declining to pay the claims and so do not blame them for anything unless it is that they do not have some satisfactory system whereby they can say just how much grain is in each car when it is turned over to other parties. When a car of grain is loaded in the country in good condition, properly sealed and shipped to market and arrives in good condition, showing no loss by leak-

age, the seals unmolested, in such a case I am sure, if the contents of the car were weighed then and there, the shrinkage would be very small. I am not posted as to what precautions are taken after the car is opened for inspection; if it is not, it should be resealed, the number of the seal properly recorded and left intact until the car is ready to be opened again for the purpose of unloading. And it should then be opened by a disinterested party and a record of the seals taken and compared with those used after the inspection.

But suppose all these precautions were taken, how are we to know that the grain was all removed from the car into the hopper scales and not some left to be otherwise disposed of? Or, if all the grain is unloaded from the car, what assurance have we that it is all delivered in the hopper scales, and the elevating arrangement does not leak, or throw some grain over? Any further than this we dare not doubt, as all that is left to be done is the weighing, which is done by a public official, and as public officials are all honest, we cannot doubt that the weighing is correctly done.

As a remedy for this useless and expensive loss, I will read an article which you no doubt have read as it appeared in the Chicago Daily Price Current of October 29, 1898, which is as follows: "The Kansas City Board of Trade and the Kansas Grain Dealers' Association have agreed upon a plan to check elevator weights, which will probably do away with complaints of shortages. A representative of the Grain Dealers' Association will be placed at each elevator, who will be furnished with the country weights for comparison with elevator weights, and in case of discrepancies they will endeavor to ascertain the cause. An extra fee of 25 cents per car is charged interior shippers to support this arrangement." The grain dealers of Kansas are no doubt on the right track, but we believe could go further to good advantage. I would like to see a track scale at each receptacle at terminal elevators, on which the car could be placed, and then have a N. G. D. Association weighmaster whose duty it would be to see that the scales were intact; take a copy of the same, weigh the car as it arrives on the scales, carefully record the gross weight and when the car is unloaded see that the grain is all taken out, again weigh the car, getting the tare and net weight and compare the result with the elevator weights. The grain in no case to be removed from the hopper until such weights are carefully compared and found to be correct. As to the cost of this arrangement twenty-five cents per car would no doubt pay for putting in the scales and all other expenses in the first year. After the scales were paid for ten or fifteen cents per car should pay all expenses. We told you a few minutes ago that Chicago received over 283,000,000 bushels of grain last year. Estimating 800 bushels of grain to a car, we would have over 354,000 cars, which at twenty-five cents per car would amount to over \$85,000 a year. Quite a sum and still this compared with the estimates made would be a saving of \$624,000. Counting 300 working days in a year it would be a saving of \$2,080 a day, or enough to build our own terminal elevators.

And now, gentlemen, cannot this organization at this meeting formulate some plan whereby these thousands may be saved to us? If done it would be very practical, to say the least, and not only benefit the members of this association, but all shippers everywhere, the effects of which would be the growth and expansion of the National Grain Dealers' Association. I believe if you will accomplish this, our association will double its membership inside of a year. What could be more of an inducement to join the organization than for shippers to know that the association was saving them nearly three-fourths of a million dollars annually in shortages at Chicago alone?

According to the Lohrke figures, the wheat export engagements at the seaboard during October have aggregated 1,746 boatloads, about 14,000,000 bushels, and the corn 1,258 loads, about 10,064,000 bushels.

JOHN R. BOOTH.

The Parry Sound Route through Canada, the terminal elevators of which were illustrated and described in the October number of the "American Elevator and Grain Trade," has this season attracted so much attention that a portrait and brief sketch of the career of the founder of the route and the owner of its elevators will not be without interest.

Mr. John Rodolphus Booth was born, as we learn from a sketch in the Railway and Shipping World of Toronto, at Winterco, Quebec, in 1826. He went to Ottawa in 1857 and engaged in the lumber business in a moderate way at first, but eventually becoming one of the largest operators in Canada, controlling 640,000 acres of timber and cutting at his own mills from 25 to 30 million feet of lumber annually. As an example of his foresight, he became a heavy purchaser, during the depression of 1874-76, of vast timber limits, which were being sold out by operators who had lost faith in the business and were letting go. These lands are now worth several times what he paid for them, and



RAILWAY AND SHIPPING WORLD

JOHN R. BOOTH.

this, too, after he has cut from them all the logs he has needed in his own business.

Of late years, owing to fires in his mills, Mr. Booth has been working out of lumber and devoting his attention and time to railway matters. One of his first works in this direction was the building of a short line in the Temiscamingue region, and the promotion of the Temiscamingue Steamboat Co. In 1881 he took up the work of building the Canada Atlantic Railway, connecting Ottawa directly with Montreal and the New England states. Later he took up the Ottawa, Arnprior & Parry Sound scheme and carried it to completion as far as Georgian Bay. Of this scheme a contemporary says:

"It is a part of one of the biggest enterprises which any private individual ever undertook on this continent. Mr. Booth aims at no less than making the O. A. & P. S. Ry. the greatest avenue to the sea of the northwestern states and Northwestern Canada. To this end the mere laying of the iron between Ottawa and the Georgian Bay was but a beginning. There were elevators to be built, steamships to be put on the lakes, agencies to be established to divert trade into the new route. In short, Mr. Booth had to reach out all over the great lakes to make their business tributary to the Parry Sound Route."

He is aiming at that, and having already accomplished much, will accomplish much more in the future without doubt.

Meantime Mr. Booth has taken an active interest in the moral and spiritual welfare of Ottawa, his

home, where he founded St. Luke's Hospital (1897) and has been a leading member of the Presbyterian church, as well as trustee and promoter of the Ottawa Ladies' College, in the affairs of which institution he has thrown the characteristic energy which has earned him the appreciation and gratitude of his fellow citizens, as a business man. The wife of his youth died in 1886.

WHAT THEY ARE DOING IN NEBRASKA.

Bulletin No. 5, dated November 1, issued by Secretary Bewsher, of the Nebraska Grain Dealers' Association, gives a résumé of the association work for October, which in brief, is as follows: A number of district meetings have been held with good results; the governing board has under consideration a proposition to coöperate with the Kansas Association's Kansas City investigation bureau; dues of 60 cents per month per elevator have been found sufficiently productive of funds to carry on the work; the Association has 261 members, representing 504 out of a possible 700 elevators in the state, equal to 75 per cent of the available material in the state; eleven new members since former report.

The Secretary says: "I would caution you against the practice of some country dealers storing grain for farmers. By some authorities this is held as illegal. I have the matter now up with the State Attorney General, and I trust will be able to give you the law in the next bulletin. It is a poor policy and a bad practice, inasmuch as it encourages speculation, occupies your investment and takes up room that could be put to better use, and often ends in an unsatisfactory settlement both to yourself and to the farmers."

As to short weights the secretary asks all sufferers to file full particulars with him. He says: "I know these shortages are occurring and too frequently, but I do not know where, and unless the members will assist me to locate these short weights by giving me definite information to work upon, I am unable to accomplish much by filing general complaints against any one market. I may be unable to obtain a reclamation of any of these particular claims, but I can learn which houses are making a practice of giving short weights and advise the dealers accordingly."

A MILWAUKEE ELEVATOR INJURED.

As a battering ram the Lake Michigan car-ferry seems, in the light of its recent performance at Milwaukee, to be an entire success. On October 19, the ferry Shenango No. 2 of the Chicago & West Michigan line, carrying 26 loaded freight cars, crashed into the elevator of the Kraus-Merkle branch of the American Malting Company. The steel-shod prow of the ferry was pushed through sixteen feet of solid docking and the foundation walls of the building, so that when the engines of the steamer were reversed and she backed away, the elevator slowly settled and began tipping toward the river. The spectators expected to see the building collapse and topple over, but when an angle of about 25 degrees was reached, the movement of the building ceased.

The elevator, which cost \$40,000, is 165 feet high and has capacity for 400,000 bushels of grain, but it was empty at the time of the accident. The engineers immediately took charge of the building, blocking it up to prevent further settling, and will eventually restore it to its normal position, including raising it 15 feet, the amount it settled after the accident.

An association called the Illinois Corn Growers' Association was organized at Springfield during the recent state fair. Mr. E. S. Fursman of El Paso was elected president, Mr. Beagley of Sibley secretary, and Mr. Hostetter treasurer. This association will keep corn constantly before the people of the state and do everything in its power to demonstrate the true value of this great crop.

ANNUAL MEETING OF THE GRAIN DEALERS' NATIONAL ASSOCIATION.

The annual meeting of the Grain Dealers' National Association was held at the Chicago Beach Hotel, Chicago, on November 2 and 3. The attendance of out-of-town members was disappointingly small, but a generous attendance of city members of the trade added spirit to the sessions, which in themselves were interesting.

President Warren T. McCray of Kentland, Ind., in opening the meeting, said it afforded him much pleasure to meet the grain dealers who had come here to devise plans and methods for advancing the Association and the grain dealer's business generally. This is the greatest single business in this country and it is conducted by an exceptionally able and intelligent body of men. The local grain dealers associations have demonstrated that this Association has a broad field of usefulness, and the Association should go hand and hand with the local bodies, to create a feeling of fellowship and harmony in the trade. Speaking as to individuals, he added, if this Association has been of no use to you personally, it is your own fault in not calling upon its good officers. All dealers should feel at home here and take part in the proceedings, the success of the meetings, as well as of the Association's work, depending upon the individual members themselves.

The report of Mr. Clark, secretary-treasurer, showed receipts from all sources, \$694.94; expenses \$532.19, leaving a balance of cash on hand \$162.75, which, with unpaid dues of \$496.75, make up a total of assets of \$659. As to work done by the secretary, he said he had sent out from 35,000 to 40,000 circulars; had received 23 new members, located in various parts of the country; had lost one by death, one by resignation, while one had retired from business. The practical work had been in the line of heading off scoop-shovel men, investigating short weights and claims. The worst case of claim was based on the Philadelphia 900-bushel "carload" of oats. The receiver claims the shipper (who used big cars) is still 3,000 bushels short, although he had shipped more bushels than the specified number of carloads called for, on Philadelphia basis. The case is not settled. There have been 65 or 70 cases of scoop-shovel men, and he had induced track-bidders to withdraw bids to those people.

The report was accepted and Messrs. Grubbs, Mayer and Freeman were appointed a committee to audit the accounts of the treasurer.

The chair then appointed the following committees:

On Membership—Messrs. A. E. Clutter, J. H. Conger, A. E. Hartley and T. W. Swift.

On Resolutions—Messrs. E. A. Grubbs, W. A. McCaffrey, C. S. Clark, Fred Mayer and E. R. Ulrich Jr.

On Nominations—Messrs. D. Hunter, G. A. Stebbins, W. J. Adams, H. M. Knight and Edward McCue.

On Arbitration—C. S. Clark, I. P. Rumsey, Arthur Sawyers. [Appointed after adjournment.]

The literary program was opened by Mr. D. G. Stewart of Pittsburg, Pa., with a paper on "The Veritable Carload in the Grain Trade."

The discussion indorsed Mr. Stewart's contention that the "carload" had become so indefinite a quantity that it should be abolished as a basis, and all sales and purchases made by quantities. Formerly the carload was 200 bushels, then it became 400; now it may be even 1,200 or 1,500 bushels. The railroads are making cars larger and larger, and requiring them to be filled. The difficulty is, in making sales to country millers and feed men, that they are not always able to handle or pay for the 1,000-bushel carloads. The real problem in the matter is to get cars that are small enough to handle small-quantity shipments. Some roads make concessions in such cases, while others run small and large cars, letting the big car go through with a small load if a small car cannot be or is not supplied on a demand for it; but in such case the shipper must call for the size car he needs.

The next paper was by Mr. E. R. Ulrich Jr. of Springfield, Ill., on "Uniform Rules for Grading Grain," which appears elsewhere in this issue.

The discussion agreed that it would be a good thing for the trade if uniform grades could be brought about, but most of those who spoke on the subject were skeptical on that point.

Mr. E. J. Noble, Chief of the Illinois Grain Inspection Office, spoke next on the topic, "The Work of the Chicago Inspection Department." Mr. Noble, among other things, referred to the difficulty of satisfying everybody with an inspection. The seller wants it high and the buyer wants it low, and between these two is the department, trying to strike an honest average. The special difficulties in handling grain are the matters of temperature and humidity. These affect the inspection, but are factors that obtain while the grain is in transit. For example, samples from a car sent in in bags may grade high, but the climatic conditions in transit may cause it to grade low on arrival. The depart-

ment takes a standard and works to that line, admitting, however, that no two inspectors will grade a line of 100 cars in the same way. The Chief Inspector defended the efficiency of the Chicago office, which is presided over by Mr. Smillie, who has been there since 1871, and who is assisted by a corps of track inspectors who have all been there for many years—none less than eight years and some as many as thirty years. There are no drinking men among them and they get \$150 a month each—a job worth keeping. The last fiscal year they inspected 327,000 cars and 4,500,000 bushels by lake in, and enormous quantities out. Mr. Smillie is on the Board floor daily to hear complaints, and of the re-inspections asked for less than 50 per cent have resulted in changes. Mr. Noble did not believe Mr. Ulrich's idea of uniform grades practicable, owing to the different qualities of the grain grown in various parts of the country, to which the market inspections had necessarily to adjust themselves on the basis of the average grain they received. The practice of making rules by the several inspection departments are often made to induce grain to flow toward these markets, especially when the cost of the inspection must be paid by the fees received, or not at all. As to grain going through Chicago, this office does not guarantee the inspection of grain the bulk of which is broken, unless it is re-inspected. In case of oats filling a car to the roof, the inspection in the car is subject to revision as the car is unloaded into the elevator. Speaking of carloads, Mr.

tests of each crop would show the inspectors how to grade it from the standpoint of germination; that it was not intended to test the germinating quality of each lot of barley inspected, but only at the beginning of the season. Mr. Kuné said in reply to Mr. Noble that the maltster would, of course, continue to buy barley by sample, as he always has bought, but that a rational inspection would be more satisfactory to the shipper, because it would grade his stuff with some slight reference to its actual value.

There was also a little spurt on the question of the usefulness of the inspection. Mr. Noble suggested it was folly to have the grain inspected if it is of no use, but both Mr. Kuné and Mr. J. G. Smythe (with Rosenbaum Bros.) said that while it might be true that the law did not require barley inspection, still it always was inspected and the broker had to pay the bill. Mr. Noble said that in that case (which was a misapprehension, to say the least) the barley went into regular houses or was inspected out, which latter inspection the law requires.

Mr. S. H. Greeley then followed with a speech on "Centralization of the Grain Trade," in which he scored the public elevator men of Chicago in general and Mr. P. D. Armonr in particular, as the authors of all the current evils in the grain trade, as well as sole prospective beneficiaries of its apparent tendencies. The functions of the warehousemen, under original warehouse law, were referred to and the alleged usurpations of rights as private dealers by the warehousemen spoken of in seathing terms. Having shown the enormous advantages which as dealers in grain come to the warehousemen through their ownership of the warehouses, and which are barred to operators in grain who are not owners, but users, of the public warehouses, and having also shown the effect of this condition, which in this state, under the ruling of the courts, is illegal, although legalized by the present warehouse law, to concentrate the business of buying and handling grain in a few hands. Mr. Greeley launched out in a philippic against P. D. Armonr and his assistants in the grain department of the business of Armour & Co. This is more or less familiar ground to grain men of the West, who are most intimately interested in this phase of the warehouse question. One new feature now incorporated in Mr. Greeley's speech, for most of it was but old straw rehashed, is the idea that the basis of the conditions that make for the centralization of the grain trade complained of is the favor of the transportation companies, which dole out special privilege to a very few men. Thus, as grain dealers, the public warehousemen had the advantage both of owning the storage houses, also of being able as such owners to mix their poor grain with the public's good grain of the same inspection grade, and make enormous profits by the practice, and also of special freight favors not within the reach of their competitors. Mr. Greeley was very positive in his ideas of the cause of the decline of the independent buyer and the commission man, but the only solution he offered was the rather harsh one which Anglo-Saxon peoples have very rarely put into motion, to wit, the mob. He predicted that if within ten years the present conditions were not abolished the public would rise in arms and wipe it off the face of the earth. [It is but fair to the Association to say that its officers distinctly disavowed Mr. Greeley's words and opinions on this subject.]

In reply to questions, Mr. Greeley said there is in the city of Chicago storage capacity for 30 million bushels of grain, one-half of which is regular. If in the event of the public warehousemen being deprived of their present privilege of dealing in grain, using the public warehouses, they then made all the elevators private houses, Mr. Greeley said that then the railroads would be required, under their charters, to furnish warehouse room for the grain of their shippers.

A number of resolutions were read which were referred to the committee.

The meeting then adjourned for the day. In the evening the receivers and track-buyers of Chicago entertained the visitors at the Chicago Beach Hotel, the details of which function are mentioned below.

THURSDAY—SECOND DAY.

The morning was opened by reading a number of communications. The first of these was from W. R. Brinkley, Secretary of the Association of Oklahoma and Indian Territories. Mr. Brinkley wrote as follows:

"I have been in the grain business in the territory for the past five years as a track buyer, but only for eighteen months as a local dealer. After entering the local business I found that the trade was subjected to many abuses. We have no territorial inspection or weighing, and I soon found that our shipments were handled in such a careless manner at terminal markets, and that during the busy season we were so harassed by the scoop-shovel brigade there was nothing in the business for legitimate dealers."

"On the 15th of last March we organized the Grain Dealers' Association of Oklahoma and Indian



WARREN T. MCGRAY, KENTLAND, IND., PRESIDENT.

Territories. As a result of this organization elevators have been built at all the grain markets and the grain is practically all handled through them and the scoop-shovel man has been eliminated from the field. The exporters and commission men have aided us materially by refusing to do business except with members. The Association now controls the situation. All regular dealers are now members. A regular system prevails, where a year ago chaos reigned.

"This being a new country and the local dealers strangers to each other, much of the work of the Association has been to equalize the differences between members. It is not generally known that each grain station here has from five to ten buyers. This station (Kingfisher) has ten buyers, and will handle three million bushels of wheat this season. Most of our buyers are new men in the business, and it took some effort to get them into the ranks of commonsense business men, as applied to the grain trade.

"At the present time we are having a car famine. All elevator capacity is taken. The streets are now blocked with teams and wagons loaded with wheat, awaiting a place to unload, much of it having been hauled for thirty, forty and fifty miles. The railroad company seems powerless to give us any relief and we are practically doing nothing. The exporters and mills are clamoring for wheat, but there is no way to move it. Cotton is king and absorbs the few cars distributed."

A letter was read from Mr. W. H. Chambers, former secretary and really the father of the present National Association. He expressed his great regret at being unable to attend the meetings. Having, in fact, been largely instrumental in bringing the Association into being, and having stimulated largely the association work of the grain trade in the West, Mr. Chambers felt gratified with the results so quickly obtained, in spite of the discouragements of conditions and persons. Continuing, Mr. Chambers said:

"My ultimate hope was to have in the United States an association of grain men who should all be closely and intimately connected by some sufficiently strong bond of cohesion to form one solid body with one general aim. In fact, this idea of mine was so strong that to make a beginning I incorporated and outlined the particulars in the present constitution and by-laws of your Association, crude though they may be. Although up to the present time the fulfillment of this idea has not been brought about, still I think it has received the approval of a good many interested dealers and ultimately will no doubt be the plan upon which the Association work will be carried on.

"I think, possibly, it has been just as well so far that this plan of organization has not been adopted by all the organizations, as the incentive to keep the organizations alive has been owing to the local benefits received. No local organization up to the present time could have been successful on the general plan proposed, but now that the local features are placed upon a solid footing by the local organizations, the time has come when they are reaching out for larger results, and they are finding that the scope over which they have control is limited to such an extent that they cannot bring pressure strong enough to secure the desired ends. As a result, today, they are compelled to ask the aid of their neighbor associations to join hands with them. This is the field that the National has hoped to fill, and I think that the local associations are coming to realize it, and are ready to adopt some coöperative methods whereby they can receive the general benefits as applied to the country at large.

"The plan as outlined in the constitution of the National Association is seemingly the only one whereby this consolidation can be satisfactorily arrived at, and with that organization already before the people, having been recognized, it seems to be the only logical conclusion that all the associations should merge themselves into it, upon the plan of government outlined, which has proven so successful heretofore among the different fraternal orders.

"There are other features which have prevented this result, which, too, is to the shame of those at fault. This has been a jealousy on the part of the officers of the local organizations, who, seemingly, have had a fear that some of the glory would thus be taken away from them, each one wanting to make his association the association, to which all others would have to tie, but the lines have been so distinctly drawn between the different states, and the organizations have become so large, that this desire for the glory has become less upon the part of the local officers, as they have found more than they could do at home without seeking the troubles of others. And in some instances they have made several very severe failures in trying to work modifications in existing conditions."

Papers by Mr. E. J. Smiley on "Success of Association Work in Kansas," and F. D. Babeock on "What Mutual Insurance has Done for Iowa Elevator Men," were read by the Secretary, the authors being unable to be present.

A letter by W. B. Booker of Danbury, Iowa, presented a problem for which he asked a solution. Mr. Booker said the local authorities were putting

in a scale and would pass an ordinance compelling all farmers to weigh on that scale. He wanted to know if the authorities could compel him to accept those weights.

No one had a precedent to cite. Generally it was thought the authorities could not compel him or the farmers to use the scale and pay the city for such use. The elevator man, or any man buying as he does, must have his own means of determining what he is buying; that no stones are weighed with grain or hay, or men with the load and boys in their places when taking the tare, etc. The Secretary was advised to write Mr. Booker, suggesting that the arbitrary compulsion of farmers to use the city scale, at their own cost, would probably drive away trade from the warehouse and so from the town, in which case the merchant would doubtless be interested with him in preventing the passage of the ordinance in question. It was also suggested that the three dealers interested give notice that in case they were compelled by the ordinance to take city weights they would hold the city pecuniarily responsible for all shortages. The suggestion that the dealers apply for an injunction was not favored as likely to give the farmers a mistaken idea of the dealers' motives in opposing the scale.

Mr. A. H. Bewsher made a short address on "What the Nebraska Association Has Done for the Regular Grain Dealers." Mr. Bewsher said that having so lately taken hold of the Nebraska work he had not had time to prepare a written article, but at the same time he felt he must be present at this meeting, and say something on the topic. The pioneer grain dealer of Nebraska was, of course, the scoop-shovel man; but as the country developed and elevators were built, the scoop-shovel became a disturber. Two years ago the Nebraska Association was organized to protect the dealers against him, and he has in fact since become less a factor there than in any state in the country, and life is very hard for the few who still remain. The scalper disposed of, other questions came up—short weights, say. Kansas City has been very unsatisfactory in that respect, and the Nebraska Association has under consideration the project of making use of the bureau of investigation recently established there by the Kansas Association.

Mr. Bewsher then outlined his methods of organizing local associations of members of the State Association as a means of settling local difficulties, and found this plan very successful. The Nebraska Association now has about 275 members, controlling 504 out of a possible 700 elevators, and as an association the Nebraska body is enthusiastic about the work done.

The next step, Mr. Bewsher said, which the Association will take, will be to organize a bureau of information for the benefit of the members. The information will cover the acreage seeded in fall and spring with regular bulletins on the growing crop, etc., including, also, a review of the work done by the Association itself in the intervals, thus keeping its members informed of all Association business. The written contract is Mr. Bewsher's own hobby, he said, which he hoped sooner or later to see adopted by the Association and used by the trade all over Nebraska. He cited many instances of loss by elevator men which a written contract would have prevented. His own purpose, however, is to work at one reform only at a time. He concluded by referring to the National Association as useful to the trade after purely local affairs had been passed.

The Committee on Resolutions then made a report. The resolutions were taken up one at a time for discussion, and adoption. The first was as follows:

Whereas, The grading of the different cereals in our markets in the United States varies so widely that it is almost impossible to tell by the inspection at one market on any kind of grain what the same class of grain will grade in some of the other markets; therefore be it hereby

Resolved, That it is the sense of the members of the Grain Dealers' National Association that we favor inspection rules that will be nearer a uniform and equal basis than at present, and inspection rules that will be more explicit and go more into details than some of the present inspection rules; and, also

Resolved, That we favor the appointing of a committee by the president to take this matter up with that end in view.

Mr. Clutter offered the suggestion that this was a matter of more interest to the West than to the East, and he would abide by Western opinion. Mr. Hunter agreed with this view, the West having many markets. He thought, however, uniformity would be a difficult matter to bring about. Mr. Bewsher reminded the Association that grading rules are established on the basis of the quality of the crops marketed at a given point, and the different states will naturally, therefore, have different grading rules. Besides, there is the difficulty of conciliating those markets which make the grading so easy as to draw the grain to them. Philadelphia has an easy inspection, Baltimore and New York a rigid one; Toledo an average one, and so on. Mr. Bewsher did not antagonize the resolution, but he had little

faith in the Association's ability to get the Boards of Trade to agree on uniformity.

The resolution was adopted.

The following resolution was then taken up and put on its passage:

Whereas, Many country elevator men are now providing depot facilities for bulk grain at country stations and acting as soliciting freight agents as well as local freight agents for carriers in the matter of grain shipments, be it

Resolved, That the Grain Dealers' National Association make a determined effort to secure a loading fee of two cents per hundred pounds for all grain loaded from the elevators of members of this Association.

The resolution was made the occasion of an extended debate. Mr. McFarlin of Des Moines, Iowa, said it was an old question, but it still remained to be determined what effect the payment of this fee would have upon the trade. President McCray said that it would probably all be given to the farmer in the end and would amount simply to a bonus paid by the elevator men, who would then have a distinct advantage over the scoop-shoveler and drive him out of the field. Mr. McFarlin thought it would be a means of largely increasing the Association membership. Mr. McCray thought that the resolution should be backed up by the appointment of a standing committee to take up the question with the railroads, but Mr. McFarlin said there had once been such a committee, which had spent time and money, but had accomplished nothing. He thought the officers could handle it. The Secretary said he had tried to find some elevator man who would take up the fight for the loading with the railroads with him, but he had so far been unable to locate his man and the work had not amounted to anything.

Mr. Johnson of Sioux Rapids, Iowa, moved to amend the resolution by striking out the last five words, to wit, "of members of this Association." He thought the form of the resolution would handicap the work by antagonizing all elevator men not members of the Association, while the railroads, too, would not (or could not) undertake to grant this special favor to certain individuals to the exclusion of all others. Moreover, all elevator men are entitled to this fee, whether they are members here or not. The resolution is class legislation, and that's bad to start with. He favored the resolution, but not the form of it.

It was said by the Secretary that the resolution had been pronounced of good form from a legal standpoint; that in effect it would amount only to the railroad's selecting the elevator man to act as its local freight agent for the handling of the grain freights.

Mr. Clutter thought this resolution the vital work of the National Association—a matter that must be pushed to a finish, by which the Association must stand or fall. He favored a committee to take up the work, beginning with one road and working that road until success or failure resulted. Then another should be worked, and so on.

The noon hour having arrived, the resolution was tabled for the present, and the meeting adjourned until 1 o'clock p. m.

In the afternoon the business was opened by a paper by Secretary Stibbens on "What the Grain Dealers' Union Has Done for the Regular Dealers." The paper was a resumé of the work done in Southwestern Iowa and Northwestern Missouri and will be published later.

Mr. N. S. Beale of Tama, Iowa, then read a paper on "Shortages in Grain Shipments." Mr. Beale supplemented his remarks by saying that the railroads are willing to take up this question; what is needed to put an end to it is some enthusiastic work on the part of this Association. The Kansas Association's plan might work generally. At any rate, this Association, or the elevator men, should have at each great terminal someone to look after their interests. Now no one looks after them.

The Nominating Committee then made a report, recommending the following to be elected officers for the ensuing year: Warren T. McCray, Kentland, Ind., president; A. E. Clutter, Lima, Ohio, first vice-president; J. M. Sewell, Hastings, Nebr., second vice-president; Chas. S. Clark, Chicago, secretary-treasurer. Directors: E. A. Grubbs, Greenville, Ohio; N. B. Illeatt, Willis, Kans.; D. Hunter, Hamburg, Iowa; B. A. Lockwood, Des Moines, Iowa, and A. Sawers, Chicago.

Mr. McCray endeavored to decline a reelection, pleading press of private business, but his excuses were all and singly overruled and the committee's recommendations were indorsed by the adoption of the report, which elected the ticket as named above.

The Auditing Committee reported examining the accounts of the treasurer and finding them correct.

Mr. A. E. Clutter then read a paper entitled, "The Internal Revenue Tax and the Grain Dealer." Mr. Clutter said but little of the tax, except that all the grain men he knew were willing to pay it for patriotism's sake, and then he made a strong plea for an extension of the work of this Association. He referred, also, to the fact that Ohio was the best represented state at this meeting.

Mr. McFarlin said the paper reminded him that he

had purposed to ask for the appointment of a committee to work for the affiliation of all existing grain dealers' organizations with the National Association. He moved such a committee be appointed by the chair. The motion was adopted.

Mr. E. A. Grubbs then read a paper on "Lending Bags to Farmers," which is printed in another column.

A letter was read from B. A. Lockwood, expressing regret at not being able to be present, and also his confidence in the bright future of the Association.

J. B. McAllester of Columbus, Ohio, also sent a letter, in the course of which he said:

"My pet hobby is a clean bill of lading for so much stuff, with the assurance that the same amount will be delivered at destination, or paid over to the receiver at invoice price, and thus do away with the excess freight claim and the shortage question at one fell swoop. This, however, is a vast undertaking to accomplish, and the details, or proper means to get at it, I will not undertake to give."

"There is another abuse that I believe might well be taken into consideration by this Association and which, as I believe, with combined effort, might be remedied. This is the reconsignment of refused stuff. The shippers of Western grain under the present arbitrary rulings of the railroad companies are sustaining very heavy losses from this source. A shipper in Ohio, for example, sells a carload of grain to a party in Pennsylvania. He sends it forward, and on arrival it is refused. He then spends probably from \$5 to \$10 telegraphing, and finally places it at some close-by point. In the meantime, he has sustained from \$5 to \$10 more loss in car service, and the railroad company informs him it will cost from 4 cents to 8 cents per cwt. to forward it, although the distance may not exceed from 10 to 50 miles. The tariff might also show that the point he may wish to reconsign it to takes the same rate from the original point of shipment that the point it is at takes. This seems to be a gross injustice. A stop-over charge of \$3 per car and a proportional charge of the through rate should be granted by the railroads."

The loading fees resolution was here taken from the table and put on its passage. Mr. I. P. Rumsey of Chicago favored the amendment of Mr. Johnson, for the railroad cannot in justice favor certain individuals only, and that a plea for all elevator men would strengthen the resolution, which in itself is proper, while the fee asked for is a right and just compensation that should be paid by the railroads. Mr. Chas. Voris of Windsor, Ill., was of the same opinion. He thought the demand on the railroad a fair one, but one which should be made on behalf of all elevator men. Anything less would, he thought, be class legislation and favoritism which would be sure to create antagonisms. Mr. McFarlin favored the original resolution because it would tend to enlarge the Association's membership and influence. The secretary said the resolution was intended for dealers' eyes only, as the expression of a policy which, of course, would require to be modified in practice. Mr. Voris scouted the idea that anything could be hidden from the general public; and made bold to predict that any such grants of favor by a railroad to some individuals at the expense of others would create a condition that would cause this Association to regret having touched the resolution at all. The loading fee must be demanded for all elevator men or for none. Problems of this sort, he thought, must be approached in a practical way, or they'll land in deep water; and while he believed the resolution as a whole impracticable, he felt that it was particularly so unless amended as proposed.

The motion to amend was adopted, after which the resolution as amended was, after some debate, still on the motion to amend, however, adopted. Instead of appointing a committee as proposed, the subject was, on motion of Mr. Clutter, referred to the officers of the Association.

The following resolutions were then taken up in succession and adopted:

Whereas, The loaning of bags to farmers prevails in some states; and

Whereas, This is detrimental to the interests of country grain dealers; therefore, be it

Resolved, That it is the sense of this Association that where such custom prevails the State Association be requested to use every effort to abolish the practice.

Whereas, Many of the terminal elevators are now equipped with hopper scales of so small capacity as to require the weighing of grain in two or three drafts, thereby doubling and tripling the opportunities for the weighman to err in weighing and recording the weight of grain; and

Whereas, The country shipper is compelled in many cases to accept such terminal weights; therefore, be it

Resolved, That the Grain Dealers' National Association in convention assembled declare against the use of such hopper scales in central markets and request the receivers and track buyers of the different markets to use their influence to bring about the displacement of the small-capacity scales

with hopper scales of sufficient capacity to weigh a carload at a single draft.

Whereas, There are many grain houses in the different markets which are in the habit of bidding and sending circulars to irregular dealers and farmers; and

Whereas, This practice is detrimental to the regular grain shippers; therefore, be it

Resolved, That where such cases are known by regular grain dealers they notify our secretary and he in turn notify the grain house who is bidding and sending circulars to said irregular dealer or farmer; and said grain house then refuses to discontinue the practice, our secretary notify all members of this Association, and also the secretaries of the different grain dealers' associations and request them to notify their members, stating that said grain house has refused to discontinue bidding or sending circulars to a farmer or irregular dealer.

Whereas, The grain dealers and receivers of Chicago have shown many courtesies and favors to the members of the Grain Dealers' National Association, while in the city; be it

Resolved, That the secretary be instructed to tender the thanks of this Association to the grain dealers and receivers of Chicago who contributed to such entertainment.

The chair then appointed the following committee:

"On affiliation"—C. S. Clark, E. A. Grubbs, E. J. Smiley, A. H. Bewsher, G. A. Stibbens, E. S. Greenleaf of Jacksonville, Ill.

Mr. Beale thought there ought to be a committee on weights; and moved that a committee of them be appointed to propose a plan for investigating the shortweight question, taking Chicago as the first point for investigation and recommendation. The report having been adopted, the chair appointed N. S. Beale of Tama, Iowa; Edward McCue of Pittsburgh, Ohio; E. H. Reynolds of Sterling, Ill.

President McCray having expressed his thanks to all present for the interest taken in the sessions of the Association and predicting a greater success for the future, the meeting adjourned sine die.

CONVENTION NOTES.

Peoria, Ill., was represented by B. E. Miles of the firm of P. B. & C. C. Miles.

The Chicago grain inspection department was represented by E. J. Noble and William Smillie.

The Millers' National Insurance Company of Chicago was represented by President W. L. Barnum.

The daily market quotations were furnished the dealers throughout the two days' session, by J. J. Mildon, representing J. F. Harris & Co., Chicago.

The Guaranty Storage Warrant Company of Chicago was represented by F. B. Potwin, and the National Storage Company, Chicago, by E. C. Rand.

A very useful article, a lead pencil, bearing the name of Ware & Leland, Chicago, was distributed among the dealers by Edward G. Heeman.

Pittsburg, Pa., was represented by W. A. McCaffrey of the firm of Daniel McCaffrey's Sons; D. G. Stewart, of D. G. Stewart & Co., and H. G. Morgan, of H. G. Morgan & Co.

Among the Ohio grain commission men who attended the meeting were: F. Mayer, of the firm of J. F. Zahn & Co., Toledo; Milton Churchill, of Churchill & Co., Toledo; E. A. Grubbs, of Greenville Grain Co., Greenville; A. C. Gale, of Gale Bros., Cincinnati; John H. Allen, of Allen & Munson, Cincinnati; H. Knaul, of Knaul & Holt, Cincinnati; J. W. McCord, Columbus; Percy R. Hyson, Columbus.

F. Mayer, of J. F. Zahn & Co., of Toledo, presented a "sure thing" to the dealers. It was an aluminum medal on one side of which was the figure of a bull and on the other a bear. The directions were to flip it in the air. If it fell with the bull on top the instructions were to buy wheat; if the bear was uppermost, sell wheat. The only conditions were that the trade should be made through J. F. Zahn & Co., or the "charm" would be broken.

The various state associations were well represented. There were in attendance D. Hunter of Hamburg, Iowa, and Geo. A. Stibbens of Coburg, Iowa, president and secretary, respectively, of the Grain Dealers' Union of Southwestern Iowa and Northwestern Missouri; Percy R. Hyson, Columbus, Ohio, president of the Ohio Grain Dealers' Association, and A. H. Bewsher, Omaha, Nebr., secretary of the Nebraska Grain Dealers' Association.

A very pleasant part of the program was the reception given Wednesday evening to the members of the Association by Chicago receivers. Music was furnished by a string orchestra, and at 10 o'clock luncheon was served. I. P. Rumsey welcomed the dealers in behalf of the receivers of Chicago, and President McCray responded for the Association. George S. Bridge spoke upon the subject of "Associations." After "Columbia" had been played by the orchestra Frank P. Schmidt Jr., of the Chicago bar, read a short

history of the United States flag, written by General Hall. The entertainment committee in charge of the reception consisted of L. Everingham, I. P. Rumsey, Arthur Sawers, Edward G. Heeman, J. G. Smyth, James P. Smith, Frank A. Maurer, F. J. Schuyler, W. N. Eckhardt, A. Rheinstrom, James Pettit, George E. Marcy, H. Hemmelgarn, P. H. Eschenburg, C. R. Clark, W. H. Merritt, C. A. Weare, E. Gerstenberg, H. H. Peters, C. B. Slade, S. C. Scatten, William Timberlake and C. R. McLain.

Among the Chicago receivers who attended the meeting were: J. G. Smyth, of Rosenthal Bros.; I. P. Rumsey, of Rumsey, Lightner & Co.; Wm. N. Eckhardt, of Pope & Eckhardt Co.; Edward G. Heeman, representing Ware & Leland; Philip H. Schifflin, of H. Hemmelgarn & Co.; D. Radford and G. L. Stibbens, representing Pope & Eckhardt Co.; F. M. Bunch, representing Rumsey, Lightner & Co.; J. J. Mildon and D. A. Noyes, representing J. F. Harris & Co.; W. P. Freeman, representing H. W. Rogers & Bros.; S. H. Greeley; Geo. S. Bridge, of T. D. Randall & Co.; D. C. Wright and Harry Angel, of Nash, Wright & Co.; F. D. Austin, of Scriber, Crighton & Co.; A. Rheinstrom, of Rheinstrom & Co.; H. L. Goeman; Julian Kuné and A. C. Curry.

The following grain dealers were present: D. Hunter, Hamburg, Iowa; G. H. Currier, Prescott, Iowa; Geo. H. Stibbens, Coburg, Iowa; J. R. Johnson and Ben Swenson, Roland, Iowa; E. L. Erieson, Story City, Iowa; N. S. Beale, Tama, Iowa; Lyman Johnson, Sioux Rapids, Iowa; E. R. Ulrich Jr., Springfield, Ill.; Charles Voris, Windsor, Ill., C. D. Dillon, Hinckley, Ill.; W. W. Bouslough, Somonauk, Ill.; E. H. Reynolds, Sterling, Ill.; S. K. Marston, Onarga, Ill.; R. F. Cummings, Clifton, Ill.; B. S. Williams, Sheffield, Ill.; A. E. Hutchinson and S. T. Zeller, Harmon, Ill.; Warren T. McCray, Kentland, Ind.; Hugh Murray and A. E. Hartley, Goodland, Ind.; T. W. Swift, Union Mills, Ind.; J. H. Conger, Eaton, Ohio; Ed. McCue, Pittsburg, Ohio; A. E. Clutter, Lima, Ohio; T. A. Mendenhall, Woodington, Ohio; J. W. Long, Florida, Ohio.

THE CORN YIELD OF 1898.

The final estimates of the corn yield, made by the Orange Judd Farmer, to November 5, show a production somewhat smaller than the average for a recent series of years, not including last year, when the production was under that of this year. Putting the average yield at 23.2 bushels as reported, and the acreage at 80,625,000, the total production would be 1,868,120,000 bushels, or 44,000,000 over last year's crop. This estimate, however, does not take into account any damage done the crop by the rains of October, complaint of which as being more or less serious come from all parts of the West. The extent of the actual damage cannot even now be accurately determined, but the Farmer says "it is certain that the loss is by far the greatest that has occurred from this cause in any year of the past two decades. The season was long enough to properly ripen all the crop, but there were neither sharp frosts nor hot days to dry out the grain."

The Farmer's table of acreage and yield will be interesting to save for future comparison. It is as follows:

PRODUCT AND RATE OF YIELD BY STATES.

	Acres.	Per acre.	Bushels.
New York	515,000	31.0	15,965,000
Pennsylvania	1,354,000	30.0	40,620,000
Texas	3,973,000	25.0	99,325,000
Arkansas	2,386,000	20.1	47,959,000
Tennessee	3,376,000	24.0	81,024,000
West Virginia	689,000	24.0	16,536,000
Kentucky	3,164,000	26.0	82,264,000
Ohio	3,162,000	33.0	104,366,000
Michigan	1,234,000	28.0	34,552,000
Indiana	4,007,000	32.0	128,224,000
Illinois	7,557,000	27.0	204,039,000
Wisconsin	1,339,000	31.0	41,509,000
Minnesota	1,057,000	30.0	31,710,000
Iowa	8,200,000	30.7	251,740,000
Missouri	6,500,000	27.6	179,400,000
Kansas	7,202,000	18.0	129,636,000
Nebraska	6,754,000	20.5	138,457,000
North Dakota	15,000	20.0	300,000
South Dakota	1,045,000	25.0	26,125,000
California	50,000	20.0	1,000,000
Oregon	18,000	23.0	414,000
Washington	11,000	22.0	242,000
Other	17,017,000	12.5	212,713,000
Total	80,625,000	23.2	1,868,120,000
1897.....	82,720,000	22.0	1,823,343,000

This corn acreage, as estimated by the government reporters, is only 77,707,000, with an estimated yield of 1,807,659,000 bushels in 1898, and 1,902,967,000 bushels in 1897.

An Iowa reporter says there were never so many cattle feeding along the Rock Island road in that state as at this time, and that a large part of Iowa's surplus corn will be fed within the state.



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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., NOVEMBER 15, 1898.

Official Paper of the Illinois Grain Dealers' Association.

The next annual meeting of the Kansas Grain Dealers' Association will be held at Topeka during the first week of January, 1899.

A certain amount of bull sentiment is a good antidote for that tired feeling; too much of it often leads "over the hill to the poorhouse."

Insurance men complain that grain insurance in the Northwest continues very light in the mills and elevators. If the usual volume of grain insurance is being done, which is doubtful, it is on farm granaries.

If someone will step forward and explain the new grain insurance policy in vogue in New York he will confer a favor on all concerned. The insurance men seem to think it is loaded and are writing very small amounts.

Secretary Smiley's hint to Kansas grain shippers to weigh their grain with some other kind of a scale than a tape measure is quite to the point, now that the Bureau is in operation. It would sound awkward if the Bureau should report the shortage, or any considerable part thereof, as occurring at the wrong end of the line.

Bureau County, Illinois, recently sent through the Appellate Court a case based on the landlord and tenant law, which throws the burden of collecting the landlord's rent, so to say, upon the elevator man. This law is a rank imposition on the elevator men, who as to trade with the tenant should be no more responsible than the grocer or whisky-seller; but so long as the courts say, as they do, that it is good law, this

is a good time of the year to warn elevator men to be mighty wary about buying tenants' grain.

THE WAREHOUSE LAW.

The Supreme Court of Illinois has denied the petition by the public warehousemen for a rehearing in the case wherein it was decided by Judge Tuley, and affirmed by the two appellate courts of the state, that public warehousemen have no right to deal in and handle grain of their own in public houses. The formal history of the case is reviewed elsewhere in this issue.

To the non-legal mind it may seem strange that the court, in denying this petition, should continue to dodge all reference to the status of the present warehouse law, which they have twice had an opportunity of expressing themselves upon and yet have not done so; but it is quite in line with the formalism of the law to scrupulously avoid judicial expression in reference to "points" not technically before the court; which policy in this case means the further delay of another lawsuit before this question shall be finally passed upon by the highest legal tribunal of the state.

The Board has already made preparations, however, to force the issue again through the courts. It is expected the Supreme Court may be reached by February 1 and by midsummer a final decision may be had. This is slow, but it is quicker than Mr. Greeley's plan of waiting ten years for the people to take up arms and all that sort of thing—a method of settling social disputes that is Frenchy or Spanish enough, goodness knows, but which is not to be relied on in Anglo-Saxon countries, except now and then to string up an obnoxious "man and brother."

It is believed the court will overthrow the present law; but no one can tell—the court has been quite erratic in times past.

STORING GRAIN FOR FARMERS.

The department of "Communicated" contains a number of good things this month. Among others there are some ideas on track-bidding, and also a new form of contract, which is the direct result of former letters on that point in this department. The editor is pleased to note by these particular letters that the readers understand the final word is never said on any subject here discussed, so long as anyone has an idea to offer for consideration.

The department is also rich this month in letters on the matter of "storing grain for farmers." As usual, there is a difference of opinion, although the preponderance of experience seems to be against the practice. An examination of the objections offered shows that the most serious are those which are the result of either the elevator man's benevolent character, which is a truly philanthropic one, or of his disregard for sound business methods. In the first place, the elevator man, more generally than otherwise, charges nothing for the use of his building—he stores free for 10, 30 or 60 days to start with, to get the grain away from his competitor. Then he makes no provision for loss by shrinkage—leaves it an open question as to who stands it. Then there's the matter of insurance—he generally pays that,

too. And if the grain heats he pays the cost of handling it in the elevator or stands the loss occurring, and so on down through the entire list, winding up with the temptation to sell someone else's grain when the house gets full to make room for more stuff of the same kind on the same terms, only to have the owner of the grain sold demand its delivery to him or the cash at a time when a top price is reached in some speculative bulge in town.

If, on the other hand, the elevator men should adopt a system to get pay for the use of their storage, to settle the question of shrinkage, and be reimbursed for other carrying charges, there could be no valid objection to the system. It would indeed be a convenience to the farmer and a source of profit to the elevator man. But competition prevents all this, just as it afflicts all other lines of business, in the country towns especially, with a similar idea that one way to make money is to throw away legitimate receipts, which the farmers themselves would not for one moment think of relinquishing were the conditions reversed.

This subject is not closed here by any means, and the editor will welcome additional views on this pertinent question, which is a timely one now.

DIRTY CORN FOR EXPORT.

One of Mr. Jos. Leiter's indictments against the present tendencies in the grain trade is that no incentive is offered by the trade to either the farmer or the shipper to handle cleaned grain further than it is necessary to bring the stuff up to grade as "contract" on inspection.

There is much truth here, for obvious reasons. And we find that, starting at the farm, the farmer is careless; or, where he is not systematically docked by the dealer or miller, he is not averse to selling dirt and screenings. At the Pennsylvania Millers' meeting it appeared, on discussion, that all purchases of wheat from the farmers were not only from 1 to $1\frac{1}{2}$ per cent short in weight, but lost, also, from 2 to $2\frac{1}{2}$ per cent at the cleaner. The close competition between corn buyers has reduced dockage for dirt far below what it ought to be in most cases, as to that cereal; and elevator men might tell tales of dirt and screenings that would account for the flight of much profit in their business.

The art of manufacturing "contract" stuff is now well understood by the mixing houses. Here, indeed, is the source of their enormous profits. For the mixing house not only mixes to manufacture contract stuff for local delivery, but he also manufactures grades that will just pass the inspection out for export. The tendency, therefore, all along the line is to lower the grade—to sell screenings and dirt as good grain.

Will the system overreach itself? is a fair question. British millers have already sounded their complaints as to wheat and are getting ready to protect themselves against both Americans and Russians, for no one shipping country has a monopoly of the system complained of. And so, too, the corn grower and shipper may be interested in the statement by American consuls in Denmark that it has been found necessary in that state to appoint a grain inspector at the free port of Copenhagen, in part in consequence of the complaints of broken

grains, cobs and dirt, which arrivals of American corn have contained to a greater extent than ever before experienced. The consuls say: "Large quantities of American corn have been rejected because of its exceedingly dirty condition. The importers have produced the certificates of the American grain inspectors, but in face of the facts as laid before the Arbitration Committee of the Copenhagen Board of Trade, these certificates have proved to be of no value, since in every case the decision has been against the importer and in favor of the customer."

The inspector, Mr. James Hoyer, therefore, warns American shippers that similar carelessness caused Denmark to abandon the use of Black Sea barley and to substitute American corn, and that unless the corn is sent in the proper condition and as represented by the American inspection certificates, there will be a return to the use of barley and the United States will lose a market for corn in Denmark.

LEITER ON WHEAT.

Mr. Joseph Leiter has contributed a well-written article on "Wheat and Its Distribution" to the November Cosmopolitan magazine. While the article contains but little that is new to grain dealers, it will assuredly be read by most of them; for "Joe" Leiter is still an interesting tradition of the trade.

The business of handling wheat, he tells the public, is concentrating in a few great companies. Such would be the natural tendency as transportation facilities multiplied and the consequent competition forced greater economies; but when the great companies began to understand the art and science (and the profit) of mixing, as the public elevator men do, then the supremacy of the public warehousemen as grain dealers was established beyond question.

A consideration of this mixing system by the public elevator men is the pith of the article. Mr. Leiter says that its effect on the quality of the grain marketed is wholly bad, because everywhere, from the farmer to the importer who sells to the consuming miller abroad, there is more profit in lowering the grade of contract wheat than there is in raising it.

The concentration of the business into a few hands has some advantages. It certainly has reduced the cost of merchandising wheat. But says Mr. Leiter:

As to whether the system in its present state is of advantage or disadvantage to the agricultural community, there can be many things said for and against. Without the present system of elevators, with the business carried on as it was before their inception, there can be no doubt that a community would be much worse off. As to whether the present system is for the best interests of the farming community in the way in which it is now conducted, I should answer most emphatically, no. There is much that could be done by proper regulation of the conduct of the business which would redound to the benefit of the farmer. The result could be accomplished without seriously interfering with the elevator interests of the country.

Any legislation that is needed in the premises, he suggests, should be of the kind whose tendency shall be to raise the grade of contract wheat and not to lower it; and this, he thinks, might be brought about by some system of "uniform grading," such as Mr. Ulrich Jr. of

Springfield has suggested in his paper printed in another column.

THE KANSAS CITY LIVE STOCK EXCHANGE DECISION.

It will be remembered that in September of last year Judge Foster of the United States District Court handed down a decision that the rules of the Kansas City Live Stock Exchange were a violation of the Sherman Anti-Trust Law, and constituted a boycott on all dealers who were not members of the exchange. The suit on which the decision was based was brought by the United States District Attorney, when a firm was ousted from the Exchange for violation of its rules. The suit practically turned on one rule which prohibits any member from dealing with any person violating any of the rules, or an expelled or suspended member. Judge Foster held that this was a boycott, especially as he thought the evidence showed that non-members were treated the same as expelled members and that as a matter of fact no one could do a live stock commission business without joining the Exchange.

Of course the case was appealed, as the decision involved the very existence, not only of the Kansas City Exchange, but likewise that of all similar commercial bodies. The United States Supreme Court has just reversed this decision, the main points of its reversal being as follows: It is declared that the Exchange is a voluntary association; that it does not do any business itself and does not prevent members from continuing business in competition with each other. The business done is not interstate commerce, even if it involves the selling of cattle for people in another state, but is simply a local aid or facility afforded. Consequently, membership in the Exchange is not a contract in restraint of interstate commerce; and if the rules of the Exchange are unlawful they are in contravention of local and not national law. Accordingly, if exchanges are illegal combinations, state law must handle them.

THE TOLEDO DISASTER.

The coroner's jury's verdict in the Toledo Union Elevator disaster of some weeks ago, which was published October 17, again emphasized the wisdom of the "American Elevator and Grain Trade" in warning its readers against dust and its accumulation in the elevator.

The verdict said substantially that the disaster was caused by an explosion of dust which had accumulated because dust removers had not been provided, and that "the evidence shows that repeated warnings had been given concerning the dust, but that they had not been heeded."

This verdict has, therefore, already been made the basis of damage suits in two or three cases involving \$10,000 each, brought against the operators by heirs of men killed by the explosion and fire.

The fact that the verdict is a plea, also, for a local building inspector will probably have little weight in the defense in actions of this sort, which a realizing sense of the physical conditions in the elevator before the explosion would have obviated.

REVENUE LAW BEARS HEAVILY.

While recent constructions of the revenue law have somewhat eased the burden which it imposes on Board of Trade transactions, the universal feeling is that the law bears altogether too heavily and unequally and that it is injuring and may seriously cripple the market. Double taxation is something that breeds revolt; and yet there is practically no limit to the number of times a car of grain may pay a tax from the time it is shipped from the West until finally disposed of in the East. This feature of the tax law is intrinsically unjust.

Another feature that has been productive of demoralization is the actual double taxation of the scalper and broker. Whatever may be thought of scalping operations theoretically, in practice they supply the necessary element of elasticity in the market and render possible quick buying and selling. Eliminate them from the market and it would lose its life, as it is losing it, under the onus of the law. Either Congress or the courts must intervene to smooth out the inequalities in the revenue law, else there will be neither market nor revenue from this source.

JOINT TRAFFIC ASSOCIATION ILLEGAL.

The decision of the United States Supreme Court, handed down October 25, takes away the last semblance of legality from associations of railways for the purpose of controlling or maintaining rates. The decision, which came as something of a surprise to many people, followed the lines laid down in the Trans-Missouri Freight Association case. It is of such sweeping character that all similar associations are by their very terms unlawful.

The Joint Traffic Association was formed just about three years ago, and comprised thirty-one roads. At the instance of some United States senators action against it was begun in the U. S. Court for the southern district of New York, on January 7, 1896. The lower court held that the Association was legal as roads could change rates by withdrawing from the Association. The government appealed the case with the result named. In the opinion of the court, there was no substantial difference between the agreement of the Joint Traffic Association and that of the Trans-Missouri Freight Association. In both cases there was a contract to make and maintain rates, which is contrary to tenor of the Sherman Anti-Trust Law. The latter was declared constitutional so far as it relates to the power of Congress to pass laws regulating interstate commerce by public carriers. Evidently there existed no doubt in the minds of the majority of the court that the Sherman Anti-Trust Law covered all sorts of compacts and agreements between railroads to maintain rates, and that so far as railroads are concerned the law is constitutional.

Railway men themselves adopt this view and many of them have stated that their only hope of protection against each other, especially against bankrupt roads, lies in Congress passing an act legalizing pooling. And probably we shall see such a bill introduced when we "have Congress on our hands" next month.

EDITORIAL MENTION

Be neighborly and send in your views on matters of trade interest. Others will appreciate it and do the same.

How were shortages in October? If there is anything in the damp weather theory, October should have been a good month to ship in.

Weevil were never so numerous as this year. All insects that infest stored grain are partial to dusty and dirty houses. The best precaution is cleanliness.

Faith in mankind is a good thing, but you need not always believe what farmers say about the prices being paid for grain by your competitor. Base your competition on known facts and not on hearsay.

Such an unprecedented spell of wet fall weather and high winds must have developed an unusual number of leaky elevator roofs. An elevator should be weather-proof; a damp house is no place to store grain.

The "elevator monopoly" bill, which created so much discussion in Manitoba and was finally withdrawn, or at least not acted upon, will again be introduced, its author, Rev. J. M. Douglas, says, and pressed to a passage.

Joe Leiter predicts a "boom in December wheat as the result of heavy foreign orders." It's refreshing to find a bull—even in the modern Joseph. But on the other hand history records but few bulls who have proved winners.

The movement of grain eastward by rail to Baltimore during the past four to six weeks has kept everyone guessing how they do it. Everybody knows he knows all about it, but yet those who are doing the business and do know are doing nothing but "sawing wood."

The grain dealer should not be expected to patch up the railway company's dilapidated cars, any more than he should act as the company's warehouseman and freight solicitor, without compensation; but just the same he must do so at times or suffer the consequences.

The grain at the Omaha Exposition wound up the season—like many of "the boys"—"chock full" of Texas weevil. It is not stated what has since become of either the grain or of his weevily majesty, which is more than usually rampant this season and needs close watching.

The suggestions sent out to shippers by the John Miller Company of Duluth are good enough to bear repeating. The company's advice is this: "Don't put two grades of wheat in the same car without a partition; you will very likely get the lowest grade in the car if you do. Don't put wheat in a dirty car. Don't put wheat in leaky cars. Don't leave the doors unfastened. And don't fail to send the advice

as soon as shipment is made, giving number of car." The further hint might be appended to the advice: "The stuff should inspect so-and-so."

The Agricultural Department at Washington is getting ready to issue weekly reports of the visible supply of wheat. The department thinks the reports as made through present channels of information are frequently inaccurate and misleading. Well, one likes to think that "the government" is infallible; but one's faith is rudely jarred at times. But we shall see as to this.

In view of the last official Russian crop bulletin's estimate of the amazingly large total of 400 million bushels of wheat for that country, the export trade will not be unduly excited over the story now current that "a steamer has been chartered to load grain at a North Atlantic port for Russia." The grain is doubtless of the kind sold on the east side of Pacific Avenue, Chicago.

The fall weather has been so exceptional that extra precautions must be taken with corn. This care should properly begin at the farm, and the elevator men would be wise to impress this fact on their trade. The crib floor should be well off the ground and out of the wet and away from rats and have a good roof. Build your own cribs that way, Mr. Elevator Man, and set a good example.

A committee of the Chicago Underwriters' Association, in declining to make the rate on the grain in a malthouse and elevator the same as on the building and machinery, said, in its report, that "It is not wise, after the many fires we have had in grain elevators, to recommend any change in the present system." That is a very peculiar reason to allege for refusing to make the insurance rates equitable on a part of the risk.

The size of a carload, as all grain dealers know, is an exceedingly variable quantity. It used to be 200 bushels; now it is almost anything—a thousand bushels, if the market is right; as much less as possible when the market is wrong. As samples of big ones Chicago recently unloaded 13 cars containing 17,948 bushels of corn, the largest of which weighed out 82,990 pounds or 1,481 bushels. Another car of another lot carried 1,329 bushels; still another 1,337.28 bushels. Isn't it, then, about time to abolish the "carload" as a basis of deals and get down to bushels; or, better still, to cents?

A couple of rather delicate questions arose regarding the insurance on a part of the grain destroyed in the fire which consumed the Union Elevator at Toledo. At least \$6,000 worth of grain was in cars on track inside the elevator, but not in store. Another point was that some of the grain destroyed was on the sidetracks outside the elevator. The question was what constituted delivery by the railroad. The elevator people had no insurance on grain on track, but the railroad company had a policy which covered sidetracks. No controversy arose and we understand that everything was settled amicably. But it is suggested that any possible

controversy in similar cases would be obviated by elevators having their policies cover grain on track as well as in store.

The attorney for the Chicago Board of Trade is of the opinion that a railroad company has not fulfilled its obligation to a shipper of property until it has unloaded said property, and that the demurrage cannot be charged on such articles as hay unless a suitable warehouseman is provided for unloading the same. They can't do it, of course; but the hay men have the testimony of their depleted bank accounts that the railroads do charge demurrage just the same.

A plow company in an Illinois town offered to give a \$20 cultivator for the bushel of corn containing the largest ears, to which was added other prizes of \$10 and \$6.50, making a total of \$36.50 of value to the winner. At last reports the trio of philanthropists had taken in over 10,000 pounds of extra choice corn, which was still coming in freely. At current corn prices this prize scheme is a winner. Almost any elevator man ought to be willing to duplicate it as a standing offer.

It is said now that the warehouse companies of New York, who have recently relinquished a part of their port charges in order to attract grain to that port, are not so generous as wise. It appears the practice of unloading grain from cars into ships without sending it through the warehouses has cut a big slice off their warehouse profits. Perhaps a little consideration for the plebeian canaler, besides remitting his lightering charge, tending to rehabilitate that interesting factor, now going to seed, might be a shrewd move by the warehouse companies of New York City.

The opponents of the free Canadian canal tolls at Buffalo, Philadelphia, etc., find company in the Montreal Corn Exchange Association, which on November 4 put itself on record against the abolition of the tolls. The Association points out that the vessel owners of the United States get all the benefits of the canals as they now are, and free tolls would only increase these benefits without corresponding advantages to Canada. If, however, the tolls be abrogated, the Association says the step should be only in return for "reciprocal coasting laws and reciprocity in agricultural products."

"It never rains but it pours." The truth of this old aphorism is verified this month by the record of a remarkable number of elevators that have collapsed, wholly or in part; of bins that have given way, and of grain storage buildings that have yielded to strong pressure, either from without or from within. Accidents of this kind should not be so numerous. The grain dealer who contemplates building should secure a competent architect, and the elevator constructed according to his plans and specifications will stand long after the country barn builder's house has been shattered by wind or pressure. The loss arising from the collapsing of a grain elevator in a busy season would amount to far more than the difference between the cost of a poor house and that of a sound one, to say nothing of the danger to life and limb which is always an accompanying part of such

an accident, the cost of which in money damages is oftentimes no inconsiderable part of the owner's losses.

It may be news to some that one important ingredient of the new smokeless powder, which all civilized nations will use hereafter in warfare, is spirits distilled from corn. All of which means one more factor making for the increased consumption of American corn. The British government, in preparing for war recently, took 450,000 gallons, and Japan has placed an order for 6,000 barrels for the same purpose. So there's no limit to the American corn grower's interest in a possible European war. Meantime, it is safe to predict that there will be enough corn juice left to go around after supplying the European demand for explosives of a different sort.

Chesterton, Ind., is the apparent victim of that enlightened railway management which shows the world how easy and comfortable all around it is to get along without the services of the elevator man, both to the railway and to the farmers. The Lake Shore road owns the so-called elevator there, but the farmers do all the work about the place—shift the cars to be loaded from place to place on the tracks and handle their grain by the most primitive appliances. And if after doing the work of the railway hands they are not all unloaded by 6 o'clock p. m. they are charged a "demurrage" of 25 cents per wagon load for their tardiness or for the privilege of unloading their stuff themselves after that hour instead of carting the grain home again. If now they had an elevator man down there the farmers might be able to unload decently and in order, while the switch engine might be called on to handle the cars to be loaded; but, then, of course there's such a thing as having things too handy and comfortable to be natural. Doubtless it's that way in Chesterton; but, say, what kind of merchants do they have there, anyway, to let their farmers' trade be handled in the present barbarous way?

A BASIS FOR RATES.

The Supreme Court of Minnesota, in what is known as the Steenerson case, which is now under revision by the Supreme Court of the United States, made the point that "A reasonable rate is determined by the present cost of reproducing the railway, not the original cost of the railway or by its bond and stock capitalization." "Should this point be sustained by the Supreme Court it will afford a basis upon which present revenues may be materially increased," says the Railway Review.

That depends. If the Minnesota court meant that the unearned increment on right of way, possession of which was originally obtained by condemnation proceedings, say, should be included in "cost," no doubt the valuation of railway real estate would be greatly enhanced as a basis for "reasonable rates," in spite of the fact that the other items of construction cost are very much cheaper now than ever before. The equities between the public and the railways as to this point are an interesting study.

Meantime it is not so much the rates as the

inequalities of rates between shippers that lead to the thought that railway management on behalf of the public is about as unfair as it is possible to be.

THE NATIONAL ASSOCIATION.

The annual meeting of the Grain Dealers' National Association at Chicago was interesting in spite of the small attendance.

Mr. Kuné's paper on "Barley Inspection" was an unanswerable indictment of the Chicago barley inspection rules, which Mr. Noble vainly endeavored to defend. The rules are more responsible for the useless and utterly absurd inspection of barley at Chicago rather than the inspectors, and it is to be hoped Mr. Kuné's presentation of the case will, as it should, conduce to a much needed reform. Mr. Ulrich's paper on "Uniformity of Grading" introduces a much more complicated difficulty by outlining a reform most desirable in itself, but one probably as arduous as it is desirable. The "Carload" problem, by Mr. Stewart, ought, in all conscience, to solve itself in the course of a natural evolution; for the carload as a measure, or standard of measure, is too ridiculous for the contemplation of business men. Mr. Beale's paper, also, on "Shortweights" was the word of a man of experience; and his urgent appeal, resulting in the appointment of a committee to go to work in Chicago, will undoubtedly bear fruit, Mr. Beale himself being chairman of the committee.

The revival of the *raison d'être*, as it was called, of the Association, the movement in favor of the 2-cent loading fee, was opportune. The loading fee is a just compensation that ought to be paid to elevator men by the railroads. The Association, too, was wise in demanding it for all elevator men rather than for Association members only.

The Association's work as outlined, however, is too big for its machinery, and it is safe to predict that until an agent is employed to transact and look after the business of the Association as the secretaries of the western associations look after their business, the work will be more or less perfunctory in character. The secretary has his own private business occupying his time; the committees have their private business taking their time. No man can serve two masters. The Association, if it accomplishes its work, must be master of someone's whole time to the exclusion of everything else. There is work enough to keep a first-class man in motion all the time.

The Montreal Trade Bulletin says that it is "a most extraordinary thing" that "as soon as the government passed a law which was intended to put a stop to bucketshop 'gambling,' this line of industry commenced to thrive with renewed vigor, until there are now more than double the number of institutions carrying on the bucketshop business in Montreal than there were when the law was passed." Of course, one must remember that there's some kink in human nature that makes a man want most particularly some things the law forbids; but a more practicable explanation of Montreal's case just now would be the question, "Where's the police?"

IN THE COURTS

The partnership of Manekum & Gerber, grain and hay dealers at Baltimore, will be dissolved by an action at law on the petition of Mr. Gerber.

The Davenport Malt and Grain Company has begun suit at Louisville, Ky., against Henry A. Berger et al. to foreclose a mortgage of \$682.85, given as security for malt purchased by defendants.

The Middle Division Elevator Co. vs. Mrs. L. Hasenwinkle was a suit brought by the elevator company for failure of the defendant to deliver grain which had been contracted for. It was tried at Bloomington, but a decision has not been made by the court.

Mrs. E. Van Hoesen sues Paddock, Hodge & Co. and the Union Elevator and Transportation Company, Toledo, for \$10,000 damages. Her husband was killed in the Union Elevator explosion. One or two other similar actions have been begun against the same defendants.

George W. Brooks of Atlanta, who has a branch grain and flour business in Nashville, Tenn., filed a bill in chancery October 12 against Z. B. Keith, seeking to secure the sum of \$200 claimed to be due him on account of shortages in ears of oats shipped him by the defendant. He also asked for a writ of attachment, which was ordered issued.

Hiram M. Brown, Chestertown, Md., has filed a petition asking for a dissolution of the partnership of J. K. B. Emory & Co., grain merchants. Mr. Brown's bill recites that in 1894-1895 he purchased and consigned to the firm, of which he is a member, 174,381 bushels of grain, and that he has not received his rightful share of profits, to the amount of \$425.85.

Mrs. Ella Sandusky of Danville, Ill., has begun suit at Chicago against Geo. H. Sidwell & Co. for \$135,000 alleged to have been lost in gambling speculation. Abraham Sandusky, her husband, a farmer, failed to bring action to recover within six months of the transaction, as required by statute, and the wife now sues for three times the amount lost. Mr. Sandusky is said to have lost \$45,000 in the deal.

Bureau County, Ill., furnishes a case of special interest to land-renters, tenants and grain buyers, as it involves the responsibility of the grain dealers in purchasing grain from persons known to be renters. Joseph Reinhart, a grain dealer at Spring Valley, bought corn to the value of \$151.10 from John H. Hoffman of Putnam County, a renter on the farm of Minnie J. Blanchard. Hoffman received the money and failed to pay the rent of the farm. Mrs. Blanchard brought suit against the grain dealer for the total amount of the money paid for the corn, and Appellate Court has decided that the grain dealer is liable therefor.

The case of the Tacoma Grain Co. vs. the Oregon Railway & Navigation Co. came up in the United States Court at Tacoma in October last, on a motion by plaintiff to dismiss the action. The suit, involving the constitutionality of the state law passed by the last legislature, compelling carriers to route grain over other lines to points within the state, where the railway does not touch, and accept a pro rata proportion of fixed tariffs, has attracted widespread attention. The Tacoma Grain Company, after a year's litigation, decided to withdraw from the expense of prosecution, and made the motion to dismiss, which the state now resists.

The case of J. H. Williams vs. Daniel Watson, heard at Danville, Ill., recently, was an attempt on the part of the plaintiff, representing the farmers interested, to prove that the grain in controversy was received at the Rossville elevator after Lester Andrews had sold the establishment to Daniel Watson, without the knowledge of the farmers, who were storing their grain in the elevator, believing it still belonged to Mr. Andrews, who had bargained for the grain. The verdict was in favor of Watson as against the farmers; the jury by the verdict expressed its belief that the grain was sold to Mr. Watson by Andrews as claimed by the defense.

Trade Notes

The Foos Mfg. Co. of Springfield, Ohio, has increased its capital stock from \$30,000 to \$75,000. This company manufactures the Scientific Attraction Mill, etc.

The S. Howes Co., Silver Creek, N. Y., is priding itself on having just received what it believes to be the largest order ever placed for separators. The order calls for 47 Eurekas.

The Allman Gas Engine & Machine Co. of New York City was recently incorporated with a capital stock of \$15,000. Among the directors is Geo. P. Lawson, of 430 Washington Street, New York.

It has been reported recently that the H. W. Caldwell & Son Co. is to erect a new factory building in Chicago. We are informed by the company, however, that this report has no foundation in fact.

A receiver was appointed last month to take charge of the affairs of the Frontier Iron Works, Detroit, Mich. This is an old-established concern, and is well known to the elevator trade as a manufacturer of Frontier Gas and Gasoline Engines.

An office has been opened at 422 Exchange Building, Kansas City, Mo., where Mr. J. N. Heater, southwestern representative of the S. Howes Co., Silver Creek, N. Y., will make his headquarters in looking after the company's trade in that section.

As noted last month, the capital stock of the Olds Gasoline Engine Works, Lansing, Mich., has been increased from \$70,000 to \$150,000. This is due to the absorbing of the Olds Motor Vehicle Co. and also to the preparations being made for doing business on a larger scale. Two large brick buildings are to be added to the plant at once.

The Riter-Couley Mfg. Co. of Pittsburg, Pa., recently received a contract for a large amount of ironwork for the immense steel plant of the Alabama Steel & Shipbuilding Co. of Ensley, Ala. This Pittsburg company has facilities for handling the largest as well as the smallest contracts in steel and iron construction, as has been shown by their work in supplying elevator structural material.

The Diamond Rubber Co. of Akron, Ohio, has secured a contract for the belting required in the new Armour Elevator D at Chicago. The specifications provide for sixteen 6-ply, 26-inch belts, about 400 feet long, and two 4-ply, 40-inch conveyor belts, about 700 feet long. This company is looking for business among the elevator trade, and they are pleased at having secured an order of such proportions.

The W. J. Clark Co. recently completed and now has in operation in its extensive plate and sheet metal working plant at Salem, Ohio, a new and greatly improved hydraulic bending and forming machine, for making boxes and other similar work of plate metal of any gauge from one-thirty-second to one-fourth of an inch, of circular or angular shape. It forms a bead or puts wire or rod of any size in the edge of plates, and does a variety of work not heretofore done by a single machine in as heavy plate.

The Sykes Steel Roofing Co. has a large corrugating and cornice works at 611 South Morgan Street, Chicago. Among their recent business they have contracts for their goods required for the large elevators being built for the Northern Grain Co., Manitowoc, Wis.; Peavay Grain Co. and Columbia Malting Co. at South Chicago; Rosenbaum Bros. and the Grand Trunk Railway in Chicago. This company is able to make prompt shipments of all kinds of painted and galvanized corrugated iron, of all gauges and sizes of corrugations, as they carry very large stocks. They issue a large catalogue of the various kinds of roofing and siding they make, and are always glad to mail this to anyone interested in their goods.

Complaints of damaged corn come from nearly all the central states.

MORE ELEVATORS AT KANSAS CITY.

The K. C., F. S. & Memphis road is erecting an elevator in Rosedale (suburb of Kansas City), which has been removed piecemeal from West Memphis, where the house was originally built at a cost of \$40,000, to transfer from cars to river boats. But after a short season's use, the Mississippi changed its mind and its course, leaving the elevator about a mile inland and useless. It will be ready by December 1. It is a much higher house than originally planned, and its machinery for handling grain is also larger, and the elevator will be capable of handling 50,000 bushels of grain in a day. It will have a storage capacity for about 200,000 bushels. It is 58x80 feet in size, and 123 feet high.

In addition, it is now current rumor in Kansas City that the same railroad company will build also an entirely new transfer house, which will enable the road to handle 75,000 bushels of grain daily. The road carries a large volume of grain for export via Gulf ports, and the proposed new house would enable the company to take the foreign cars of grain which are turned over to it in Kansas City, and, without breaking bulk or mixing the contents of different cars in any way, transfer all grain from foreign cars to cars belonging to the road before the grain proceeded on its southbound trip.

FARMERS' ELEVATORS IN COLORADO.

The San Luis Valley of Colorado has been coming into notice of late years as a promising grain producing section; and this year it claims a production of considerably over 2,000,000 bushels of wheat. There are three mills in the valley, but these are unable to grind more than a portion of the crop, the balance of which must be exported.

In addition to the mills there has been but one elevator in the valley to handle all this grain. This was the house located at Hooper, controlled by the Colorado Milling and Elevator Company, which was burned October 8. Its destruction at this time is quite a misfortune to the neighborhood. The elevator will be rebuilt at once, however. A portion of the half a million bushels of grain in the valley which probably would have made use of it will be held until it is rebuilt, but the balance will be shipped out in such condition as it may happen to be in as it comes from the farm.

Much apprehension has been felt by the farmers about facilities for handling future years' crops, for which they have intended to prepare a larger acreage; but we are informed arrangements have been made whereby ample provision will be made by farmers' companies themselves to handle the grain in the future.

Both at Hooper and at Mosca, farmers' companies have been organized to build an elevator at each station to have 100,000 bushels' storage capacity. The stock in these companies is owned by about one hundred farmers, to whom shares have been allotted in proportion to the amount of grain they wish to store or market through the elevator. These companies are the result of efforts made by the San Luis Valley Chamber of Commerce to open up a market for the surplus wheat of the valley, of which this season there are about two million bushels available for export; and this, the farmers of the valley claim, is "only a beginning of the possible production." The elevators at Hooper and Mosca are now in course of construction.

The Chamber of Commerce, named above, delegated its president, Mr. W. H. Terry, who is also secretary and manager of the Mosca Farmers' Elevator Company, to look up the best market for this wheat, and to organize the farmers so as to get the wheat in hand and in shape to sell it to the best advantage. The farmers' elevators are, therefore, the direct results of his efforts. The plan fully developed provides for several additional elevators to be erected at suitable points next year; and the wheat growers, as we are now told, "are enthusiastic in their hopes of getting in the future better

prices for their wheat than they did in the past, when it was sent to market uncleared and ungraded."

DOTS AND DASHES

He started out to make his mark,
And in the wheat pit tried his luck;
With warning words men still point out
The dented spot whereon he struck.

The new N. P. box cars have a capacity of 1,200 bushels of wheat.

The new tank elevator at Fort William, Ont., with vessel berths, is now ready for business.

Philadelphia's exports of grain for the ten months ended October 31 were over 25,000,000 bushels.

Toledo claims to be the largest winter wheat and the largest clover seed market in the world.

The cleaning house elevators take a higher rate than the regular elevator in the line companies.

Grand Rapids, Mich., handled 346 cars of wheat, 27 of flour, 41 of corn, 45 of oats, 2 of rye and 27 of hay, in October.

The Great Northern Elevator at Buffalo has handled 15,000,000 bushels of grain from the opening of navigation to the middle of October.

Peoria's grain receipts for the year (will be about 30,000,000 bushels) have declined 3,000,000 bushels from a total of last year and nearly 10,000,000 bushels from the total for 1896.

S. C. King of Nortonville, Kans., early this month sold 15,000 bushels of corn in the crib at 29 cents, which he bought two years ago at 17 cents. The corn went to cattle feeders in Nortonville.

Grain exports for October from New Orleans were 1,720,500 bushels of wheat and 704,776 of corn, a gain of 337,264 bushels of wheat and a loss of 1,230,235 bushels of corn, compared with 1897.

Ex-Secretary Carlisle has been engaged to argue the stamp tax cases in the Supreme Court of the United States, appearing for James Nicol and Geo. R. Nichols. Both cases have been decided against Mr. Carlisle's clients by Judge Showalter.

October was the heaviest month in the history of the grain business at Head of the Lakes, the receipts having been 18,758,052 bushels, and shipments 16,383,612 bushels, beating any previous record by 3,000,000 bushels. The bulk of the stuff was wheat.

At a special general meeting of the Canada Fire Underwriters' Association at Toronto October 17, the differences regarding grain insurance rates in Manitoba and the Northwest were amicably settled and the resignations of the Scottish Union and British America withdrawn.

The "grafter" who has been reported working the farmers in New York, Ohio and Indiana has been heard from in Kansas selling big corn raised from seed recently discovered in Egypt. The ears are made of carefully selected slices of ordinary big corn. The seed is sold to the credulous at 10 to 25 cents per kernel.

Devany (his name has no handle) is the latest farmers' friend. He hails from Swisselm, Ohio, and is a candidate for the presidency, of course. He promises dollar wheat and 10-cent cotton on the strength of the bow covenant with Noah, regardless of the weather. This is a good deal to promise, but not much more than the other candidates will be promising in 15 to 18 months from now.

Travelers through the Northwest, the Dakotas particularly, are full of the changes in the material condition of the people there in the past few years. Six years ago Gov. Sheldon said the Dakota farmers were starving, and the great dailies' correspondents said this was true. Now, the farmers are rich and prosperous, have paid their debts, have money in the banks, and are no large borrowers except to buy more lands. Six years ago the interest rate was 12 to 24 per cent; now the state of South Dakota finds difficulty in loaning its school funds at 7 per cent; and the tide of immigration, which had come to a stop, has begun to flow toward these states again.

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago for the month ending with Nov. 12 has been as follows:

October.	NO. 2 R.W. WHT.		NO. 1 NO. 1 P.W.H.T.		NO. 2 CORN.		NO. 2 OATS.		NO. 2 RYE.		NO. 1 N.W. FLAXSEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
12.			30½	30½	22½	22½	49	49½	91½	92		
13.			30½	30½	22½	22½	49½	50	91½	92		
14.			30½	30½	22½	22½	49½	50	92	92		
15.			30½	30½	22½	22½	49½	49½	92½	92½		
16.			30½	30½	22½	22½	49½	49½	92½	92½		
17.	65½	66										
18.			31½	31½	23½	23½	49½	49½	93½	93½		
19.			31½	31½	23½	23½	49½	49½	93½	93½		
20.	68½	68½										
21.			32½	32½	23½	23½	50½	50½	100	101		
22.	68½	68½	68½	68½	23½	23½	50½	50½	100	101½		
23.			32	32	23½	23½	50½	50½	102½	102½		
24.			38	70½	22	32½	23½	23½	50½	50½	103	
25.			32	32	23½	24½	24½	50½	50½	102	102	
26.			32	32	23½	24½	24½	50	102	102		
27.			32	32	23½	24½	24½	50	51	103	103	
28.			32	32	23½	24½	24½	50	51½	104	101½	
29.			32	32	23½	24½	24½	50	51½	105	106	
30.			32½	32½	25	25	51½	51½	106½	107		
31.			32½	32½	25	25	51½	51½	106½	107		
Nov.—												
1.			65½	65½	32½	32½	52½	52½	108	108½		
2.	68½	68½	66½	66½	32½	32½	52½	52½	107½	107½		
3.			32½	32½	24½	24½	52½	52½	107	107		
4.			32	32	24½	24½	52½	52½	104½	105		
5.			31½	32	25½	25½	52	52	103½	103½		
6.			32	32	25½	25½	52	52	103½	103½		
7.			32	32	25½	25½	51½	51½	102½	102½		
8.			66	66	32½	32½	51½	51½	102	102		
9.			32	32	32½	32½	51½	51½	100½	100½		
10.			32	32	32½	32½	51½	51½	100½	100½		
11.			32	32	32	32	49½	49½	99½	100		
12.												

* Election Day.

During the week ending October 21 Prime Contract Timothy Seed sold at \$2.20@2.27½ per cental; Prime Contract Clover Seed at \$7.50; Hungarian at \$0.55@0.65; German Millet at \$0.55@0.75; buckwheat at \$0.75 per 100 pounds.

During the week ending October 28 Prime Contract Timothy Seed sold at \$2.25@2.30 per cental; Prime Contract Clover Seed at \$7.50@\$8.00; Hungarian at \$0.55@0.65; German Millet at \$1.55@0.75 per cental; buckwheat at \$0.75@0.80 per 100 pounds.

During the week ending November 4 Prime Contract Timothy Seed sold at \$2.25@2.30 per cental; Prime Contract Clover Seed at \$7.75 per cental; Hungarian at \$0.55@0.65; German Millet at \$0.55@0.75; buckwheat at \$0.75@0.80 per 100 pounds.

EXPORTS FROM ATLANTIC PORTS.

The exports of breadstuffs, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from the Atlantic ports during the two weeks ending Nov. 5, as compared with same weeks last year, have been as follows:

Articles.	For week ending Nov. 5.		For week ending Nov. 6.		For week ending Oct. 29.		For week ending Oct. 30.	
	1898.	1897.	1898.	1897.	1898.	1897.	1898.	1897.
Wheat, bushels.....	3,559,000	2,900,000	3,536,000	2,887,000				
Corn, bushels.....	3,331,000	2,368,000	3,078,000	1,838,000				
Oats, bushels.....	792,000	1,945,000	664,000	1,323,000				
Rye, bushels.....	255,000	258,000	505,000	247,000				
Flour, barrels.....	430,400	286,100	289,500	346,900				

MALT CURING.

The kilning process in malting, says the London Brewers' Journal, practically embraces two distinct steps—drying and curing; and while all succeed in expelling moisture, few can be credited with success in connection with curing and the development of the desired malty palate, that means so much in connection with eventual beer quality.

True malt curing, and corresponding wort cooking are most important matters. In connection with drying a very definite up-draught is all-important. A mistake is easily made, since, if through the agency of enormous passage of air at temperatures ranging from 100 degrees to 136 degrees the entire bulk of moisture is removed, true cooking is rendered impossible, even in the case of mealy, hand-dry grain. Every operative malthouse foreman should be taught the practical lesson that five or six per cent of moisture must always be the aid to mere heat influence, as this is rapidly carried upwards, for he will then note the developing flavor without advanced color, and the analyst will also find a controlled diastatic property in the malt.

The study of kiln working on the basis of practical research will repay well every reader of this note who adopts the advice so frequently given. We constantly deal with raw malts, dry and tasteless material, and many samples that are scorched and acid in flavor, peculiarities that prove the accuracy of our contention concerning lack of knowledge on the part of working maltsters; for, while the mere drying kiln is easily understood and manipulated, the question of curing brings into view the history almost of a forgotten art.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc. at leading receiving and shipping points in the United States for the month of October, 1898:

BUFFALO—Reported by Chas. H. Kepp, secretary of the Merchants Exchange:

Articles.	Receipts.		Shipments.	
	1898.	1897.	1898.	1897.
Wheat, bushels.....	14,025,131	11,128,679	13,342,600	10,687,617
Corn, bushels.....	6,456,993	6,677,875	4,691,212	6,968,254
Oats, bushels.....	3,618,625	8,277,063	5,914,911	7,730,232
Barley, bushels.....	2,915,554	2,513,882	1,652,673	2,354,208
Rye, bushels.....	753,834	636,410	547,000	874,946
Flaxseed, bushels.....	1,812,847	...	...	...
Flour, barrels.....	1,845,912	...	...	...

CHICAGO—Reported by George F. Stone, secretary of the Board of Trade:

Articles.	Receipts.		Shipments.	
	1898.	1897.	1898.	1897.
Wheat, bushels.....	14,025,131	11,128,679	13,342,600	10,687,617
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Flaxseed, bushels.....	1,812,847
Flour, barrels.....	1,845,912

CLEVELAND—Reported by F. A. Scott, secretary of the Chamber of Commerce:

| Articles. | Receipts. | | Shipments. | |
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LIKE A FISHERMAN'S YARNS.

Andrew Belleville, a McLean County, Illinois farmer, recently took to Bloomington a sample ear of white dent corn, planted June 1, which was ripe in just 100 days. The sample ear had 29 rows of kernels on it, disproving the notion that the rows always run in even numbers. This ear has 1,396 grains on it and weighs 25½ ounces. Fifty of these ears would make a bushel of 80 pounds, and allowing two ears to a bushel would produce at the rate of 115 bushels to the acre. J. R. Morrison of Danvers, of the same county, also planted this variety of corn, and says it will yield at the rate of 80 bushels to the acre.

The largest corn exhibited at the Ohio State Fair this year reached Columbus by express from Kansas too late to be entered for competition for premium, but was accorded space for exhibition in the extreme northwest corner of the Agricultural building. It is of this year's growth and raised by renters at Stark. Some samples of the stalks measured six and three-quarters inches in circumference, while "the ears," says the enthusiastic reporter, "are as large as good-sized sticks of firewood. The stalks grow from ten to sixteen and one half feet tall."

One of the most remarkable yields of this year is that reported by C. E. Moss, who has leased a farm three and one-half miles east of Fairfield, Washington. He had a small field of oats—just five and one-half acres—that yielded 583 bushels, or 106 bushels to the acre.

Ed. V. Bohl, an Illinois farmer, won the second prize at the Illinois State Fair for corn yield, 150 bushels to the acre.

The Mt. Carmel, Ind., Register is responsible for the following: "Mr. D. F. Henderleiter, a prominent farmer of Lancaster Precinct, brought an ear of corn to this office that is a curiosity, with history attached. The grains on this ear are of old gold color, but Mr. H. informs us that they grow all colors of the rainbow and yield from two to eleven ears to the stalk. It is claimed for this corn that it will yield 400 bushels to the acre. J. A. Everett, seedsman, Indianapolis, claims that the original seed was found fifteen feet under ground at some point in Arkansas, inclosed in a sealed jar, and papers found with it showed that it had been buried 3,000 years previously by the mound builders."

A correspondent of the Country Gentleman, from Portage County, Ohio, says: "I was greatly interested this season in a corn experiment carried on by my neighbor, a miller. Two years ago he selected a few ideally formed ears of each of seven varieties of corn brought to the mill, and in the spring he thoroughly mixed this seed and planted a small field. The growth was fair and the earing was pretty good. This season he planted an experimental acre with the finest corn he could select from this seed and he planted it on pretty good sod ground. The result is that it is the finest acre of corn I ever saw—save ensilage corn. The growth of stalk and foliage is immense. The ears are wonderfully abundant, large, well filled out at the tips, bright yellow in color, and promise to husk out an unusual yield."

Judge McFarland of Memphis, Tenn., having tired of 5-cent cotton, tried his hand this year on a few acres of corn as an experiment. He planted two acres to "Mallory's Prolific" and gathered from the two acres 190 bushels. On one acre of this ground there were used 100 pounds of acid phosphate and 200 pounds of cottonseed meal by way of fertilizers, and that acre produced alone 112 bushels of corn. The other acre, on which no fertilizers were used, produced only 78 bushels. On another lot of four acres fertilized there were gathered 300 bushels of corn. On 80 acres where no fertilizers were used, there were gathered 50 bushels of corn to the acre, besides a crop of peas. This was all done on upland that a few years ago had been abandoned as worn out.

G. N. Bell of the Minneapolis Grain Exchange received from this year's crop a sample of British Columbia wheat, yielding 27 bushels to the acre, weighing 65½ pounds per bushel.

Two ears of corn came into Little Sioux, Iowa, which measured 15 and 15½ inches in length.

A farmer in Missionary Ridge brought into Chattanooga two ears of corn that grew in a peafield, which weighed 1½ and 1¾ pounds.

J. J. Williams of Cleveland, Ohio, has a dent cornfield near Marion which is estimated to husk out between 150 and 200 bushels to the acre.

An Indiana paper says that "There is a field of corn north of Kewanna that will yield over one hundred bushels to the acre. Competent farmers estimate it at 150 bushels to the acre. This corn was first raised in Scott County, Indiana, with a yield of 200 bushels to the acre, the ground being especially prepared. On ordinary ground the yield will be at least 125 bushels to the acre. The corn is of large growth, eight to ten feet high, large, thick stalks, two to eight ears on a stalk, often four well developed ears on a stalk, eight to ten inches long."

BROOM CORN.

The broom corn crop for 1898 turns out good in quality of brush and larger in yield per acre, but the low prices last spring caused a large reduction of acreage (about 30 per cent) and consequent reduction of total product by about one-quarter.

The crop is not an important one, being given very little attention outside of a few counties of Illinois and Kansas. The following statement by the Orange Judd Farmer shows the estimated acreage and product of the crop for this year, compared with those of last year:

	1898.			1897.		
	Acre.	Yld.	Pounds.	Acres.	Yld.	Pounds.
Ill.	20,100	625	12,562,000	21,100	575	12,133,000
Kan.	32,500	470	15,275,000	55,500	450	24,975,000
Neb.	9,000	440	3,960,000	12,600	425	5,355,000
Other.	4,000	400	1,600,000	5,000	400	2,000,000
Total.	65,600	509	33,397,000	94,200	473	44,463,000

In 1895 the total acreage was estimated at 200,100 acres and the total crop at 114,142,500 pounds.

The crop being purely a local one, its size is particularly responsive to the influence of prices ordinarily. Until recently it was centered in a few counties of Illinois, but a desire to experiment with the crop in the dry districts of Kansas led to a sudden expansion of the area devoted to the crop in that state, where in 1895 no less than 140,000 acres were devoted to it. The area has since declined almost as rapidly.

The Illinois brush of new crop has been bringing \$60 to \$65 per ton, while that of Kansas is worth only \$40 to \$50. The old brush was practically all out of first hands in Illinois by midsummer, but in Kansas about 10 per cent of last year's crop was still on hand at October 1.

THE OATS HARVEST.

The final returns of the oats crop to the Orange Judd Farmer, made by correspondents to October 1, indicate a crop by no means good in quality nor as large as for 1897. There is a large proportion of lightweight oats in Illinois, Missouri, Kansas and parts of Nebraska. The more northerly districts of the oats area, such as Northern Iowa, Wisconsin, Minnesota and North Dakota, show the best quality.

The total acreage for 1898 was 28,704,000, producing an average of 27.8 bushels per acre, or a total of 798,958,000 bushels, against 29,191,000 acres, yielding 28 bushels per acre, or a total of 817,900,000 bushels, in 1897.

For 1898 Iowa had the largest acreage and yield, 4,370,000 acres and 144,210,000 bushels; Illinois was next with 3,673,000 acres and 89,600,000 bushels; Wisconsin third with 1,862,000 acres and 68,522,000 bushels, and Minnesota fourth with 1,757,000 acres and 64,833,000 bushels.

As to average yield per acre Washington leads with 41.2 bushels. Oregon is next with 37 bushels; then Minnesota, 36.9; Wisconsin, 36.8; Texas, 36; Iowa, 33; New York, 30, and so on.

Central Elevator A, Chicago, has been remodeled for a cleaning house.

NEW CORN PRODUCTS.

It is said that the Glucose Sugar Refining Company of Chicago is now making about 40 different products from Indian corn. This number does not include cellulose, which is now manufactured from the pith of the stalk, notably for lining the armor of warships; nor yet paper from the shell of the stalk and the husks—a new process recently perfected by the Marsden Development Company of Rockford, Ill. As to the latter process, the difficulty has been to make it commercially practicable, there being no question of the theoretical practicability of making paper from corn stalks. It now appears, however, that the Marsden Company is able to make on a commercial scale, not only an excellent quality of cardboard, but the managers believe they will soon be able to add paper also of a high grade, the cheaper qualities of print paper being now practicable. Any invasion by the corn product of the wood-pulp monopoly would be a national blessing, chiefly because it would save to posterity some part of the rapidly disappearing forests now being slaughtered to feed the insatiable presses of the daily newspapers.

One of the most important new products derived from corn, however, is the "substitute rubber," made by the Glucose Sugar Refining Company. This product is made from the oil of the germ, and is therefore a simultaneous by-product of glucose and starch making. It is a seal brown in color, or lead colored on the surface after exposure to the air, and is hard or soft according to the temperature applied to it, and the amount of sulphuric acid used in vulcanizing. The small block before us has some resiliency, but is brittle. It has quite the appearance and many of the qualities of crude Para rubber; but the manufacturers make no claim for the product that it is one which can be used alone, but that it is to be used with rubber as rubber stock. They add: "Rubber goods manufactured from the mixture of our substitute rubber and pure rubber will have better keeping qualities than goods manufactured from rubber alone; for pure rubber will dry up, oxidize and crack, whereas goods in which our substitute rubber is used will not do so." The importance commercially of the new product is seen on a comparison of its cost, 4½ cents per pound, with the cost of Para rubber, \$1 per pound.

On the floor of the private office of President C. H. Matthiessen of the Glucose Sugar Refining Company, there is now a handsome carpet of linoleum made from the corn rubber produced in the factory presided over by him.

There is also the corn oil, made from the germ, from which the rubber has been developed. The oil is extracted by pressure in a manner similar to the extraction of oil from flaxseed. The Glucose Sugar Refining Company is now making several hundred barrels daily of this product, which goes to Europe for soap-making. It is sometimes used also as a "dryer" in the cheaper American paints.

In addition to all these, now comes a correspondent of the News of Darlington, S. C., who declares that J. J. Gandy of that county brought into Darlington "a sample of molasses made from corn stalks. It tasted and looked like ordinary molasses made from ribbon cane." It was molasses, then, for all practical purposes, suggests the editor of the Charleston News and Courier, who adds: "If it had looked like molasses and tasted like whisky, for instance; or if it had tasted like molasses and looked like buttermilk or kerosene or axle-grease or anything of that kind, we should have had nothing to say about it; but when an article is made for molasses, and exhibited as molasses and looks and tastes like molasses, we feel that we are wholly at liberty to say that it is molasses and to discuss it as molasses. It is to be noted, moreover, that the sample in question had the appearance and taste of the best kind of molasses, namely, that made from ribbon cane; so that it is really to be regarded as a very superior article of its kind." As to all of which we can only repeat the dictum of our Charleston cotemporary, to wit, that "All persons who are especially interested in the subject

of the new product and its economic uses are hereby respectfully, but firmly, referred to the gentlemen and the newspaper of Darlington, who have discussed it."

SHIPPING CHARGES ON WHEAT.

James H. Milne, the exporter, furnishes to a Chicago daily the detail of shipping charges on wheat from Chicago to Liverpool by two routes, and shows that, including the Liverpool charges, they aggregate in one instance 17.67½ cents per bushel; and in the other instance, 18.05 per bushel, and that with the December price at Liverpool equivalent as at present to about 78.25 cents per bushel, the Liverpool shipper cannot afford to pay over 60½ cents for his wheat in Chicago.

The detailed shipping cost by the Boston route, the cheapest, is as follows: By lake to Buffalo per bushel, 1.25 cents; Buffalo to Liverpool, 10.25 cents; Boston charges, .12½ cent; lake and ocean insurance, .37½ cent; Liverpool charges, 4.80 cents; Chicago storage, .75 cent; Chicago inspection, .12½ cent. Total via the cheapest route to Liverpool per bushel, 17.67½ cents. With the price at Liverpool equal to 78.25 cents per bushel the shipper by this route can afford to pay at Chicago for his wheat 60.58½ cents.

By the Montreal route Mr. Milne figures the total charges 18.05 per bushel, permitting the shipper to pay only 60.20 cents per bushel, with the Liverpool price at 78.25 cents per bushel. Of these charges Mr. Milne said: "This is the exact equivalent via either of these two routes, and they are cheaper than via New York. But for shipment from the seaboard first half of October the equivalent of 63 cents at Chicago was bid Thursday, or 65½ cents i. f. Buffalo for such wheat as will pass contract in Liverpool, probably because October delivery is at a little better price than the December."

TACKLING THE SHORT-WEIGHT QUESTION AT KANSAS CITY.

The Kansas Grain Dealers' Association has given up waiting for the Kansas City Board of Trade to put an end to the short-weight nuisance at that terminal, and has taken the matter into its own hands. In order to come to some practicable understanding, the governing board of the Association met with the directors of the Board of Trade at Kansas City early in October, and then announced their desire to put some of the Association's own men into the elevators in the city to inspect the weighing and the condition of grain cars when they reach Kansas City, and to investigate all other details of the terminal system which would throw light on how the shortage comes about. They asked permission to do this at their own expense, and received assurances that every one of the eighteen elevators in Kansas City, as well as all of the commission men, would be willing to have them do so. The only provision the Board of Trade wanted in the matter was that the inspectors should be appointed by the Association and paid and directed by them so that there could be no suspicion that the checkmen would not be looking entirely after the interests of the Kansas people.

The Kansas Association's committee therupon went home, and having perfected their plans met again in Kansas City on October 26, and appointed their men. This committee was composed of President N. B. Hicatt, Secretary E. J. Smiley and Messrs. M. L. Cortelyou of Muscatine, H. I. Strong of Coffeyville, C. S. Carkener and B. C. Christopher of Kansas City. They appointed M. G. Consley as manager of the Association's bureau, who will have an office in the Exchange building. He will be assisted at present by five checkmen, all of whom have had no less than two years' experience in the elevator business. The following were appointed as checkmen: J. A. Miller of Wichita, G. A. Strait of Muscatine, Victor Farris of Concordia, F. A. Jones of Holton and W. L. Thompson of Wichita. This number of checkmen will be increased if need be-

enough, at any rate, to take charge of all grain shipped by members of the Association.

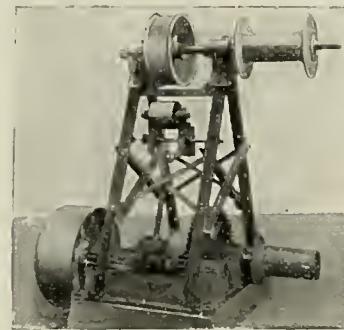
The expenses of the bureau will be borne by a tax on the members of 25 cents per car sold on the Kansas City market. As a result of correspondence with the Nebraska and Oklahoma associations, it is probable they also will patronize the Association's bureau, which began its work on November 1.

Secretary Smiley writes us: "We believe that this will practically solve the short-weight question, and fix the blame where it belongs."

A SAFETY CAR PULLER.

An almost indispensable part of the equipment of every elevator of importance is a car puller. However, this part of the machinery is rarely ever referred to or given any particular thought.

For this reason a glance at the accompanying cut



may prove interesting to many. It illustrates the safety car puller manufactured by the Link-Belt Machinery Co. of Chicago. It has a steel frame on a cast-iron bed. It is an extra heavy puller with a capacity for moving ten to fifteen loaded cars.

HANDLING GRAIN AT LIVERPOOL.

The reputation which Liverpool has had of being a dear port is hardly deserved, says a correspondent of the Shipping Gazette; or, perhaps, is no longer deserved in view of the facilities now offered by the Waterloo Grain Warehouse of the Mersey Docks and Warehouse Board, by whom the total charges payable to the dock and warehouse have been reduced from 33 to 50 per cent. Grain in bags (except oats) or in bulk is now unloaded at 4d. to 5d. per ton.

The Board also make claim for expeditious work, and cite as some remarkable performances the discharge of 1,650 tons of River Plate grain in bags in nine hours; 2,685 tons in 16½ hours; 3,181 tons in 19½ hours, etc. The average speed for bagged grain from importing steamers is from 600 to 1,500 tons per day, and from 250 to 1,000 tons from sailing vessels, according to the arrangements made. For unloading grain from the Atlantic liners and other vessels in the American trade, an elevator of 50 to 100 tons' capacity is used, unloading directly into store. By means of belt conveyors to remove the grain, three towers can be used simultaneously in the same vessel.

There are like facilities for loading vessels, the grain being spouted to movable hopper scales on the platform of the quay and thence to the vessels or cars. Facilities are provided also for transferring from one vessel to another without sending grain through the house, by means of a floating elevator, which contains a hopper scale in the tower.

The warehouses are fireproof, lighted by electricity, and can accommodate 35,000 tons in the warehouse and 8,000 tons on the quay. The warehouses have five internal elevators, or towers, each with a lifting capacity of about 50 tons per hour. Bulk grain is elevated directly into or carried by belt conveyors to the towers, where it is taken to the top of the warehouses, weighed by hopper, and then distributed by the belts and spouts to the rooms for storage. The warehouses are also supplied with 28 hydraulic hoists for the discharge of bag and sack grain and general merchandise, 12 of these lifting 20 hundredweight each, 10 lifting 10 hundredweight each, and the remaining 6 lifting 6 hundredweight each. In the case of grain intended for transit by rail, loads of four tons and

upward are put direct into cars alongside the warehouses and then hauled by locomotives to the various railway stations. Traffic for conveyance by canal is carted to the several depots, this work being undertaken by the Board.

THE GRAIN TRADE OF CANADA.

The wheat crop of Manitoba, now estimated at 30 to 33 million bushels, is handled, in the main, by Winnipeg firms, of whom there are 25 to 28. The largest of these, such as the Northern Elevator Company, Dominion Elevator Company, Manitoba Grain Company, etc., are amalgamations of various smaller companies and individual buyers and elevator owners. Where there are independent country buyers, they dispose of their grain at Winnipeg also, through the commission houses.

The Northern Elevator Company was originally organized as a pool, but later on became a stock company. The company now owns 102 elevators at country points, nearly all of which are fully equipped houses, the balance being flat warehouses, and will buy grain at 125 points. The Manitoba Grain Company is also an amalgamation of individual firms, and although only two years old, now owns 40 elevators and buys at 60 points. In like manner the Dominion Elevator Company controls a large line of houses and buys at over 100 country points. This firm is rather a pool than a formal corporation. It is composed of five firms who are more or less independent, but all of whose purchases go into one lot and are sold through what the pool calls its "clearing house." The pool thus effects some economies in handling grain and in maintaining agents at New York and in England. The three milling companies of Winnipeg, the Ogilvie and Lake of the Woods Milling Companies, and the Hudson's Bay Company, are also heavy buyers direct from farmers, the first two, particularly, having both elevators and buyers at the country market towns of the wheat belt, and between them handle several million bushels of wheat. Of the other twenty odd firms at Winnipeg, several operate from one to twenty-five houses each, and each buys at several points, while still others are merely commission men or buyers on track without owning country elevators themselves. The buyers have formed a grain exchange, for whom N. Bawlf is now erecting at Winnipeg a handsome building.

When we get into Ontario, however, the grain trade is handled in a very different manner. There are practically no elevators at country points for storing grain, which is held by the farmers in their own granaries. The grain business there is reduced substantially to a car-lot business, the small country buyers selling to millers and exporters in car-lots as fast as they buy the wheat or as it comes to market. One feature peculiar to Ontario is the Millers' Association buyer at Toronto. When a miller wants a car of wheat which he cannot procure at home, he sends word to the central buyer for the Association at Toronto, by whom the lot is bought and forwarded to him. It is stated, however, that two of the larger Manitoba grain companies propose to operate in Ontario this fall and winter, in which case the Ontario methods may undergo a radical change.

As to marketing the crop, the mills of Canada will take about twelve million bushels. Of the balance available for export, Montreal has hitherto handled about one-fifth, the rest going to the seaboard, via Buffalo. It is now announced that the Canadian Pacific is talking of putting on an Atlantic line of steamers and will bill grain through from Manitoba to Liverpool over their own cars and vessels—if a subsidy is granted the company. The Montreal vessel men, however, affirm that they can get all the grain they can carry now, and that the port needs only increased harbor facilities and a more general development of the Canadian routes from the West to Montreal.

Galveston has received 5,378,866 bushels of corn and wheat this season—a gain over the previous season. The city has three first-class elevators. The Texans think the scales need repairing, however.

ELEVATOR & GRAIN NEWS

ILLINOIS.

Fuller & Keltner have built a grain elevator at Gorman, Ill.

Geo. Whitham expects to build a grain warehouse at Cornell, Ill.

Work is well started on C. A. Burks' new elevator at Bement, Ill.

F. M. Snyder is building an addition to his elevator at Stanford, Ill.

B. F. Baker has broken ground for his new elevator at Delana, Ill.

D. W. Faull has opened a grain, hay and feed store at Aurora, Ill.

Geo. Bates has recently purchased the "Q" Elevator at Anuboy, Ill.

Danvers, Ill., dealers shipped 25 carloads of grain on one day last month.

It is reported that C. M. Packard expects to build an elevator at Shirland, Ill.

A new sheller has been installed in Maxwell & Son's elevator at New Berlin, Ill.

Seward & Davis' new elevator at Williamsfield, Ill., was completed a fortnight ago.

E. & I. Jennings of Gays, Ill., have placed new machinery in their elevator recently.

The Turner-Hudnut Grain Co. of Pekin is building a grain elevator at Hainesville, Ill.

Jacob Puterbaugh has purchased 15,000 bushels of old corn in the vicinity of Lilly, Ill.

John Doyle, a prominent farmer of Longview, Ill., will erect a new elevator there at once.

The J. Bannister Grain Co. of Peoria, Ill., has incorporated with a capital stock of \$2,500.

H. Van Beuning & Co.'s new elevator at Emden, Ill., will be completed about December 1.

The Western Feed & Grain Co. at Chicago, Ill., has incorporated with a capital of \$20,000.

J. A. Ellis of Saunemin has purchased and taken possession of an elevator at Rosamond, Ill.

Fred L. Wilson has secured control of the Leader Amex coal and grain business at Clinton, Ill.

Tom Harney has purchased the elevator at Anna, Ill., which he sold a few months ago.

Rollins & Risser have installed a 25-horse power gasoline engine in their elevator at Woodland, Ill.

The Middle Division Elevator Co. of Chicago is represented at Deatur, Ill., by Arthur L. Dumont.

Wapella, Ill., it is claimed, ships more grain than any other station on the Illinois Central Railroad.

Chris. Koch & Son have repaired the scales at their recently purchased elevator at Algonquin, Ill.

The United States Cereal Company, Chicago, certified to an increase of capital stock from \$100 to \$25,000.

J. C. Dewey & Co. of Geneseo, Ill., are reported as doing a rushing business this fall at their grain elevator.

S. D. and H. M. Wood recently sold to Delavan, Ill., dealers 200,000 bushels of corn from three or four crops.

Benton Watson, who recently sold his elevator at Chesterville, has engaged in the grain business at Tuscola, Ill.

The Chicago Dock Co. of Chicago, Ill., has placed an order with the Rice Machinery Co. for power transmission machinery.

W. R. Crackel, the Lawrenceville, Ill., grain man, has improved his driveway and dump, and will build a corn crib 30x60 feet.

A building permit has been issued to the Peavey Elevator Co., for building an \$85,000 addition to its elevator plant at South Chicago.

The Illinois Central elevator is about completed at Tolono, Ill. It will have greater capacity than the one recently destroyed by fire.

Lexington, Ill., dealers have contracts for 25,000 to 30,000 bushels of corn, which is being delivered as rapidly as the roads will permit.

The firm of Dunaway, Newell & Co. has been formed at Ottawa, Ill., by J. N. Dunaway, A. J. Newell and Geo. C. Dunaway. The A. K. Knapp line of elevators has been purchased, located at the following places: Ottawa, South Ottawa, Utica,

Serena and Buffalo Rock. Mr. Newell has been superintendent of these elevators for about 20 years.

G. L. Sheridan has purchased the interest of his brother, Samuel Sheridan, in the grain and merchandise firm of Sheridan Bros.

The Farmers' Elevator Co. of Easton, Ill., held its first annual meeting last month and reelected Doc. McClintock as treasurer and manager.

One Saturday recently two Minier, Ill., grain firms received 323 loads, or nearly 18,000 bushels, of corn, which record was only exceeded once before.

The elevator at Rock Falls, Ill., is to be opened by Bocock & Wrigley. Mr. Bocock, whose home is in Wyoming, Ill., will manage the business.

Geo. Seaton & Co. have sold their grain and coal business at Seaton, Ill., to A. L. Duncan & Son of Oakville, Iowa, who took charge on November 1.

The Standard Milling Co. of Alton, Ill., unloaded into its elevator recently 13,590 bushels of wheat, which was the largest amount they ever took in in one day.

The Rice Machinery Co. of Chicago has received the contract for power transmission machinery for the new cereal mill of Suffern, Hunt & Co. at Decatur, Ill.

H. R. Danforth, Del Rey, Ill., has recently placed an order with the Webster Manufacturing Company for a 10-horse power gasoline engine for running his elevator.

Frank Supple of Bloomington, Ill., has just put up a 5,000-bushel elevator at Twin Grove Station, on the Big Four Railroad. It will be operated as a branch of the Bloomington elevator.

All of the machinery going into the new elevator at Tolono, Ill., which is being built by Carrington, Hannah & Co. of Chicago, is being furnished by the Webster Manufacturing Company.

W. A. Haynes & Co. of Chenoa, Ill., recently placed an order with the Webster Manufacturing Company for complete new elevator outfit, together with a 20-horse power Webster Gasoline Engine.

B. F. Baker, Delana, Ill., recently placed an order with the Webster Mfg. Co. for all the machinery required for the equipment of his new elevator at Delana. The elevator will be run by a 6½-horse power Webster Gasoline Engine.

The Turner-Hudnut Grain Company of Pekin, Ill., recently purchased the hominy mill there and are building two houses with a capacity of 35,000 bushels. They will build a 25,000-bushel house in December, bringing the total capacity of their Pekin buildings up to 825,000 bushels. They also own twelve and manage fifteen elevators outside.—Pantagraph, Bloomington, Ill.

The nearly completed elevator of the Rogers Grain Company of Gibson City, Ill., is 50 feet long, 42 feet wide and 52 feet high. A cupola 20x36 feet and 20 feet high surmounts the structure. The elevator is capable of holding 100,000 bushels of grain. The four main bins are 57 feet deep. The equipment comprises a new 28-horse power gasoline engine, 2 stands of elevators, a sheller and cleaner and 4 sets of conveyors. The cost when complete will be between \$6,000 and \$7,000.—Pantagraph, Bloomington, Ill.

CENTRAL.

H. M. Beck has built an elevator at Hassan, Ohio.

Nelson & Wall are building an elevator at Newcastle, Ind.

G. L. McLane & Co. have an elevator about completed at Terhune, Ind.

James Taft has his new elevator at Webberville, Mich., about completed.

Ben C. Thomas is now operating the Cerealine Elevator at Columbus, Ind.

The Hudnut Co. of Terre Haute, Ind., intends to build a large elevator there.

The Brook Grain Co. of Brook, Ind., has made a small addition to its elevator.

Dennis Uhl & Co. have a new wheat dump at their Empire Mills, Logansport, Ind.

A gasoline engine is among the improvements added to the elevator at Munith, Mich.

H. H. Roose has purchased the elevator at Edgerton, Ohio, from Z. H. Travis of Toledo.

Geo. Stillwell of Swayzee, Ind., is building an elevator at a station known as Poplar Hills.

S. Van Steenbergh is building a 64-foot corn crib in connection with his elevator at Talbot, Ind.

H. C. Tinkham, Latty, Ohio, is building an elevator after plans and specifications furnished by

Philip Smith, and is putting in his improved machinery.

G. T. Harding, Marion, Ohio, is building an elevator, using Philip Smith's improved machinery.

L. Finkenbine is doing business in his new elevator at Anna, Ohio, on the C. H. & D. Railroad.

The Fairport Warehouse & Elevator Co. are building a new warehouse at Fairport Harbor, Ohio.

E. E. Chapple of Belding, Mich., has placed in his elevator a new bean cleaner and separator.

Adams & Co., Hedges, Ohio, have placed their order with Philip Smith for an outfit for their elevator.

The warehouse and elevator firm of Hale & Siple at Otsego, Mich., has been succeeded by G. H. Siple & Co.

G. C. Campbell has completed his elevator at Atlanta, Ohio, which replaced the one destroyed by fire.

It is reported that J. J. Coon of Toledo, Ohio, has purchased land there on which he will erect a large elevator.

It is reported that the elevator at Silverwood, Mich., has been purchased by a Mr. Caley of Metamora.

W. E. Hurd has put in a new ear corn dump at the Johnson Warehouse at Logansport, Ind., which he operates.

Mendenhalls & Bailey have remodeled their grain elevator at Woodington, Ohio. The capacity was increased to 50,000 bushels.

The Murray City Coal Co. of Columbus, Ohio, is building an elevator at that place, using Philip Smith's improved machinery.

The McLaughlin Elevator at Clark's Lake, Mich., has put in 8 bean-picking machines and employs that number of girls to operate them.

G. L. McLane & Co. of Union Mills, Ind., are building a transfer and clearing house at Battle Creek, Mich. The complete equipment of machinery was furnished by the Rice Machinery Co. of Chicago.

The F. & P. M. Railroad's elevator at Ludington, Mich., is being enlarged and repaired. A story is being added to its height and a new power plant built, which will also furnish electric lights along the docks. A new marine leg is being put in with a capacity of 15,000 bushels per hour.

The stockholders of the Wabash Elevator Co. met at Toledo last month and elected the following directors and officers: Directors, A. M. White, Geo. W. Davis, C. L. Reynolds, R. H. Baker, D. Coghill, C. F. Adams and F. B. Shoemaker. A. M. White was elected president; R. H. Baker, vice-president, and B. B. Durfee, superintendent. Mr. Adams and Mr. Shoemaker succeeded Mr. Carrington and Mr. Haviland, both of whom have removed from Toledo.

IOWA.

A new elevator is to be built at Cumberland, Iowa.

Henry Soppe is buying grain at Worthington, Iowa.

A 10,000-bushel elevator is being built at Rands, Iowa.

Perry Arney's elevator at Albion, Iowa, is about completed.

The new elevator at Van Cleve, Iowa, is about completed.

G. F. Burmeister is building a new elevator at Donahue, Iowa.

Dave Snapp has engaged in the grain business at Des Moines, Iowa.

A. W. Dawson of Mason City has built an elevator at Marble Rock, Iowa.

B. C. Moore has purchased J. F. Offill's grain business at Prairie City, Iowa.

Orville Lee is putting in a new wagon scale at his elevator at Sac City, Iowa.

Andrew Smith and Andrew Slutter are putting up an elevator at Carroll, Iowa.

Carrington, Hannah & Co. recently shelled 75,000 bushels of corn at Smithland, Iowa.

P. Vandenoever contemplates removing his elevator from McIntyre to Sutton, Iowa.

The Muscatine Oat Meal Co. of Muscatine, Iowa, has commenced work on a new elevator.

D. W. Ludwick, dealer in grain and coal, has moved from Barrett to Frankfort, Iowa.

A. Williamson, Paulina, Iowa, recently placed a contract with the Webster Mfg. Co. for all machinery required for his new elevator at that

point. When completed this elevator will be one of the model houses of Northwestern Iowa.

Felton & Husman of La Porte City, Iowa, have built an oats warehouse of 30,000 bushels' capacity.

Barnard Bros', new elevator at Sloan, Iowa, is nearing completion. It is 24x32 feet and 52 feet high.

Conrad Brick of Grand Mound, Iowa, is converting his feed mill into an elevator, putting in a dump, gasoline engine, etc.

H. Greysmnhl's elevator at Audubon, Iowa, is being rebuilt and enlarged and new dumps and a gasoline engine added.

The Elevator, Coal & Machine Co. of Oelwein, Iowa, has opened for business with an elevator of about 50,000 bushels' capacity.

Ryan's new elevator at Ermine, Iowa, is enjoying a good business. The power is supplied by a gasoline engine. Geo. Perrin is manager.

Barnard Bros. have their new elevator at Sloan, Iowa, nearly completed. It is 24x32 feet and 52 feet high, and has all modern improvements.

H. E. Ankeny is operating a public warehouse for the storage of linseed oil and the products of flaxseed, at the linseed oil works, Des Moines, Iowa.

L. H. Valentine has sold his elevator at Mapleton, Iowa, to Lamp & Putzler. Mr. Putzler has been the manager of the Kansas City & St. Paul elevator there.

Schmidt & Co., Mason City, Ia., are building a new elevator there and have placed an order for all of the machinery required for the equipment of the house.

J. V. F. Babcock, son of F. D. Babcock of Ida Grove, Iowa, has purchased Mitchell & Bossard's elevator at that place and will conduct the grain business on his own account.

The Northern Iowa Grain Co.'s houses at Rolf, Iowa, have been filled with oats and large new oats bins have been erected and filled as fast as finished. M. C. Brown is the local manager.

Work has been commenced on the site of the large Peavey Elevator at Council Bluffs, Iowa, and the building will progress as rapidly as the weather will permit. The building permit estimates the cost at \$175,000.

Plains of the Des Moines Elevator Co. for building a new elevator at Des Moines, Iowa, have been delayed by action of the city council in regard to a site. The company will probably lease the old distillery elevator for a year, owing to the delay.

EASTERN.

Chas. Thwing recently completed a grain elevator at Putney, Vt.

Geo. Crandall has opened a feed store at McDonough, N. Y.

Kimball Bros. will put a grain elevator in their store at Bath, Me.

Delos Robinson has opened a grain and feed store at Hartwick, N. Y.

Beattie & Nelson are occupying their new grain store at South Ryegate, Vt.

Martin Corfield, Honesdale, Pa., has just put in a new Webster Gasoline Engine.

A large addition is being built to W. D. Grant's grain store at Willimantic, Conn.

J. L. Hayes & Co. have been improving their grain warehouses at Lewiston, Maine.

It is reported that a 100,000-bushel grain elevator is to be built at Chatham Center, N. Y.

A new feed store building is being erected at Lestershire, N. Y., for Rickard & Cornell.

Mackenzie & Winslow of Fall River, Mass., contemplate rebuilding their burned elevator next spring.

Will Booth continues the feed store of Booth Bros. at Grahamsville, N. Y., Stanley Booth having retired.

Robert Parker has opened a grain and feed store at Cambridgeport, Vt., and will also do custom grinding.

C. B. Cummings & Sons recently purchased the grain business of S. S. Waterhouse at Mechanic Falls, Maine.

Clarke Bros. expect to erect a large hay and grain storehouse in connection with their feed store at Lenox, Mass.

A. P. Clark of Barre, Vt., will open a grain business in the property known as the Harwood Mills. He will also do custom grinding.

The Chas. G. Curtiss Co. has been incorporated at Buffalo, N. Y., with a capital of \$300,000, to manufacture products of grain. The incorporators are:

Alex. M. Curtiss, Harlow C. Curtiss, F. D. Locke of Buffalo, and Gustav Sabatha of New York.

Smith & Dearborn of Belmont, N. H., are to build a large storehouse and grain elevator. The contract for the building has been let.

Charles B. Aldrich, Amesbury, Mass., dealer in grain, hay and flour, has made an assignment to Fitz & Carroll, wholesale grain dealers of Boston.

The Grand Trunk Elevator at Portland, Maine, started up for the season about three weeks ago. It is rapidly filling with grain for early shipment abroad.

Potter & Co., the grain dealers of Athol, Mass., are building a 20,000-bushel elevator. It will have automatic scales and be operated and lighted by electricity.

F. P. Rowell of Newport, N. H., has recently built a large storage bin in his grain store, and is putting in a 3-horse power water motor to do the elevating.

The Clyde Grain & Produce Co. has been organized at Clyde, N. Y., by Geo. Brisbin, Derrick Douglass and Caleb J. Brown. A storehouse 30x75 feet is being built.

D. D. & N. D. Fritch of Maenner, Pa., are about to commence work on an elevator of from 30,000 to 40,000 bushels' capacity. It will be operated in connection with their flour mill.

H. L. Crouch, a miller of Erie, Pa., is to erect a large elevator and flour warehouse in that city. Work will soon be commenced on the buildings, which are to be constructed of brick and steel.

H. M. Brown of Baltimore, Md., recently filed a bill in court asking for the dissolution of the grain firm of J. K. B. Emory & Co., composed of himself and John K. B. Emory, and that an accounting be made.

Work on the new Fitchburg Elevator at Charlestown, Mass., has been delayed on account of the slow arrival of steel, but the railroad company has thus far made its temporary house answer all requirements.

G. B. Harrison & Co., Mount Clare, N. J., recently placed an order with the Webster Mfg. Co. for machinery required in making changes in their elevator. They have added a double Clark Shovel Machine and new elevator leg, besides making other improvements.

Eastport, Maine, is again indulging in its annual dream to the effect that large grain elevators are to be built there and the city become a great exporting point. This dream seems to be founded on nothing more tangible than the fact that Mr. F. H. Peavey of Minneapolis is a native of that place and takes a great interest in the town.

NORTHWESTERN.

A new elevator is being completed at Merton, Wis.

J. Fertig recently raised his grain warehouse at Arcadia, Wis.

The railroad elevator at Clinton, Wis., has recently been repaired.

A large addition has been made to the Dewal Elevator at Keweenaw, Wis.

The elevator at Washburn, Wis., loaded 700,000 bushels of grain into vessels in one week recently.

G. F. Thomas of Lester Prairie, Minn., has sold his elevator at Swea City, Iowa.

A. A. Ness, general store and grain dealer at Peterson, Minn., has assigned.

A large grain cleaner has been placed in the Nelson Elevator at Chokio, Minn.

It is expected that a farmers' elevator company will be organized at Benson, Minn.

Richards, Graves & Roberts are building a grain elevator at Oregon, Wis., 22x54x20 feet.

Wm. H. Kuehn of Juneau, Wis., is now handling flour in addition to his elevator business.

It is reported that the Great Northern Railroad will build an elevator at Smith Lake, Minn.

The Spencer Grain Co. are building a large corn crib near their warehouse at Parker, S. Dak.

Bussen Bros. of Cuba, Wis., dealers in grain, etc., have been succeeded by Bussen, Wilson & Co.

R. F. Connell of Hayton, Wis., has built an addition to his grain elevator for the storage of salt.

The Woodworth Elevator at Napoleon, N. Dak., was completed recently by Tromanhauser Bros.

The Northern Grain Co. of Chicago has leased and will operate the Phoenix Elevator at Cedar Grove, Wis.

Lytle & Stoppenbach have purchased the complete equipment of machinery for their new grain elevator at Jefferson Junction, Wis., of the Skillin & Rich-

ards Mfg. Co. of Chicago. The Macdonald Engineering Co. of Chicago was the contractor and builder.

W. W. Cargill & Co. of Green Bay have rented an elevator at Greenleaf, Wis., and placed a bnyer there.

The Home Elevator Co. of Murdock, Swift Co., Minn., has been incorporated, with a capital stock of \$10,000.

The Messrs. Fairchild of Sturgeon Bay, Wis., have leased the Washburn Elevator and are buying grain and produce.

W. H. Stokes, the miller of Watertown, S. Dak., is having built two steel storage tanks of about 50,000 bushels' capacity each.

The Atlas Elevator Co. is overhauling an old elevator at Aberdeen, S. Dak., and will soon open it in charge of G. A. Hahn.

The Farmers' Elevator Co. of Wilmar, Minn., are to build a 20,000-bushel elevator on the Great Northern sidetrack at that place.

The merchants of Thief River Falls, Minn., contemplate the organization of a grain buying association, to attract more trade.

The Angus Smith Company's elevators C and D, at Milwaukee, Wis., have been leased to Faist, Kraus & Co. for a term of two years. The capacity of these houses is 480,000 bushels.

The entire equipment of rope transmission, line shafting, etc., required in making the changes in the elevator of the Milwaukee Elevator Co., Milwaukee, Wis., was furnished by the Webster Mfg. Co.

Winona, Minn., is much agitated over the prospects of a large grain elevator being built at the east end of the toll bridge, that is, in Trempealeau, Wis. As the toll is 25 cents it is evident that such a house would attract nearly all the Wisconsin grain that now goes to Winona. Trempealeau is seeing visions of her former greatness as a grain market restored, which the Winona Herald laments to the extent of nearly a column in a single issue.

WESTERN.

The Missoula Mercantile Co.'s new elevator at Kalispell, Mont., is completed.

The grain firm of Harris & Maltby at Rocky Ford, Colo., has been dissolved.

Davis Bros., it is said, will build a 75,000-bushel elevator at Union, Oregon, next year.

J. T. Bibb, representing the Tacoma Grain Co., has opened an office at Spokane, Wash.

The Morrow County Land & Trust Co. of Heppner, Oregon, has gone into the wheat buying business this year.

Elevator A, erected by C. E. Wood at Genesee, Idaho, with a capacity of about 125,000 bushels, was put in operation on October 7 and worked entirely satisfactory.

The Struby Elevator at Denver, Colo., which is about completed, is to have a one-story addition 60x112 feet. It will be built at once and used for storing sacked grain and general warehouse purposes.

MISSOURI, KANSAS AND NEBRASKA.

A new elevator is talked of for Madison, Nebr.

A new elevator is being erected at Nemaha City, Nebr.

J. F. Bayliss' new elevator at Watson, Mo., is about completed.

John Kaiser is erecting a 100,000-bushel elevator at Jefferson City, Mo..

The Duff Grain Co.'s large elevator at Nebraska City, Nebr., is completed.

W. R. Sherer is building an addition to his grain warehouse at Blodgett, Mo.

John Kaiser and others are building a 100,000-bushel elevator at St. Charles, Mo.

Farmers of Great Bend, Kans., are organizing a cooperative company to build an elevator.

R. Smith recently succeeded Wm. Coon in the grain and coal business at Elmwood, Nebr.

J. P. Gibbons & Co. are erecting an elevator at Buda, Nebr., with a storage capacity of 20,000 bushels.

James McHenry, proprietor of the flouring mill at Emerson, Nebr., is building a 15,000-bushel elevator there.

The Eclipse Elevator of Kansas City, Mo., operated by C. F. Orthwein & Sons, will install a new oat clipper.

The Farmers' Grain & Stock Co. of Hooper, Nebr., at its annual meeting last month declared a dividend of 20 per cent. This is the first divi-

dend in the eight years that the company has been in business. A balance remains in the treasury.

The Omaha Elevator Co.'s new 25,000-bushel elevators at Valley and Elkhorn, Nebr., are about ready for use.

McCeery & Fairman, Pauline, Nebr., are the successors of P. Townsend in the grain and general store business.

The annual meeting of the stockholders of the Atchison City Elevator Co. was held in Topeka, Kans., on October 27.

H. J. Light & Co. are building a 4,000-bushel elevator at Salina, Kans., and another of the same capacity at New Cambria.

The Southern Elevator of Kansas City, Mo., has contracted for an oat clipper and other machinery for the improvement of its plant.

Kansas City papers credit a "large Eastern grain firm" with the intention of building a 200,000-bushel elevator in that city in the near future.

Lee & Gingery, the Dunlap, Iowa, grain and coal merchants, have added a new engine room and office to their elevator plant at Valparaiso, Nebr.

The H. L. Strong Grain Co. of Coffeyville, Kans., has purchased the elevator at Conway Springs, and will operate it under the management of Bert Strong.

The Dempster Mill & Manufacturing Co. of Beatrice, Nebr., has awarded the contract for the complete equipment of its new grain elevator at that place to the Rice Machinery Co. of Chicago.

Work was commenced on the New Union Elevator at St. Louis on August 1, and it is now receiving the finishing touches. The capacity is 1,050,000 bushels, and the handling capacity 150 cars daily.

SOUTHERN.

R. C. Lee has sold out his grain and produce business at Edna, Tex.

The Houston Grain & Commission Co. has succeeded the Houston Grain Co. at Houston, Tex.

Taylor, Texas, has a large new cottonseed oil mill, and the "board of trade" of that town is trying to secure a grain elevator and a flouring mill also.

M. B. Neely of Pulaski, Tenn., is attempting to organize a stock company to build a 50,000-bushel elevator at that place. Mr. Neely operates a flour mill there.

The Hawesville Elevator Co., Hawesville, Ky., expects to handle 500,000 bushels of corn this season. Over 75,000 bushels had been purchased up to the first of this month.

CANADIAN.

H. Keys recently completed a grain warehouse at Plumas, Man.

The Delta Farmers' Feed Co. has succeeded J. H. Geddis at Vancouver, B. C.

John Moody & Co. is the name of a new grain buying firm at Regina, Assa.

A new grain warehouse has been built at the T. H. & B. Ry. station at Smithville, Ont.

The Northern Elevator Co. will place drying machinery in its elevator at Winnipeg, Man.

An extensive drying plant is being added to the Canadian Pacific Elevator at Port Arthur, Ont.

The Northern Elevator Co. of Winnipeg will build a 15,000-bushel elevator at Solsgirth, Man.

A. J. Green, a wholesale grain and produce dealer, has moved his headquarters from Essex to Windsor, Ont.

The 1,000,000-barrel Grand Trunk Elevator at Midland, Ont., was opened on October 18, and took in a cargo of corn.

McMillan & Lane have added to their elevator at Morden, Man., a drying machinery with a capacity of 1,000 bushels per day.

A cargo of 230,900 feet of white oak lumber from Richmond, Va., arrived recently at St. John, N. B., for the new elevator about to be built there.

The Manitoba Grain Co. has sold its grain business at Calgary to the Calgary Milling Co. The latter company has a new elevator nearly completed.

The Pembroke Milling Co., Pembroke, Ont., is to build a two-story elevator 30x60 feet. It will be lined and floored with iron so as to be vermin proof.

Alderman Musgrave and John McInnes of Halifax, N. S., are advocating the construction of floating elevators for Halifax harbor, pending the completion of the new government elevator.

The damaged grain at the Union Elevator at Toledo has been selling to Illinois feeders at \$12 per ton.

TRANSPORTATION

The Delaware & Hudson Canal Company has decided to abandon its gravity railroad and the canal from Honesdale, Pa., to Rondout.

About 1,400 bushels of wheat are now loaded into the Panhandle and Big Four cars, as compared with 250 bushels about 30 years ago.

There was great scarcity of grain cars along the line of the Missouri Pacific in Kansas, during the last part of October and first of November.

The Missouri Pacific Railroad on November 1 announced a proportional rate of 5 cents per 100 pounds on flour and mill feed from the Missouri River to St. Louis and East St. Louis.

The heavy movement of grain the first part of November and the ear famine on some of the eastern roads caused an accumulation of ears at St. Louis, Mo., that caused much inconvenience to the trade.

The total shipment of grain from Buffalo, N. Y., by canal during October, was as follows: Wheat, 336,600 bushels; corn, 1,883,212 bushels; barley, 388,859 bushels; oats, 556,911 bushels; flaxseed, 30,605,744 pounds.

The Crosby Transportation Co. has established a line of boats which will connect the Chicago & Northwestern and Wisconsin Central railroads at Manitowoc, Wis., with the Grand Trunk Railway at Grand Haven, Mich.

The winter rate on grain and its products except corn, from Milwaukee to New York, all rail, went into effect on November 10. The rate is, to New York, 20 cents; to Boston, 22 cents; to Philadelphia, 17½ cents per 100 pounds.

The grain men of St. Louis, Mo., have been finding a very large amount of grain arriving at that point recently, billed through. Too many shipments of such nature do not make a satisfactory state of affairs for the St. Louis dealers.

The Texas & Pacific Railway was authorized, by an amendment to the grain tariff on October 24, to stop in transit corn for the purpose of shelling, at a charge of \$5 per car for the stop, in addition to the through rate from point of origin to final destination.

There has never been in the history of Philadelphia such busy times as prevailed the first part of November in the export grain trade. The war scare in England, France and Russia has increased the already large demand for our breadstuffs, and shippers and brokers at all the eastern ports are reaping a good harvest.

A number of Chicago capitalists have proposed to construct a canal across the counties of Schoolcraft and Alger, Michigan, for the purpose of connecting Lake Superior with Lake Michigan. The distance across the two counties is less than 40 miles, and the canal, it is alleged, would save at least 600 miles' travel and lockage at St. Mary's Falls Canal.

The Joint Traffic Association, representing all the railroads in the territory east of the Mississippi River and north of the Ohio River, announced a purpose to advance rates on grain from Chicago to the Atlantic seaboard to 20½ cents per 100 pounds. The order was subsequently withdrawn, however, owing to the decision of the Supreme Court.

At very many points in Kansas there were complaints of scarcity of grain cars during the first part of November. At Claflin, Kans., there were five grain firms with 30,000 bushels of wheat waiting to be moved, of which 7,000 bushels were lying on the ground. The shortage of cars was attributed to the fact that farmers had been holding their grain for higher prices, and the movement in grain was unexpected by the railroad companies.

The Kansas City, Fort Scott & Memphis Railroad on November 4 reduced grain product rates from local points on its line to Memphis 5 cents, and corn products 2 cents per 100 pounds. It reduced also proportional rates on grain products from Kansas City and junction points south, to basis of 10 cents per 100 pounds to Memphis. On November 14 it advanced the proportional rate on grain from Kansas City and junction points south to Memphis to basis of 10 cents per 100 pounds.

There is much complaint from vessel-owners on account of the long wait their vessels are frequently obliged to make at Buffalo, N. Y., for the elevators. It is a hardship, they allege, for vessels to wait even 24 hours to be unloaded, and a number of the vessel owners are advocating a general conference of shippers and owners to be held next winter, which they think would lead to a clause in the bills of lading that would protect the vessel owner, or, at least, reduce the delays

and divide the losses with the shipper. Another cause for complaint is the dividing up of cargoes into so many lots, as vessels are made to follow each other around from elevator to elevator in Duluth, and then do the same thing in Buffalo in order to get their cargoes out. This is very expensive to the vessel owner, and often results in much loss of time.

FLAXSEED.

It is said the October flurry caught some of the independent crushers short on seed.

At November 1 there were all of 3,000,000 bushels of flax unthrashed on the Northern Minnesota and Dakota.

Dornbusch figures the flaxseed crop as short, America alone having any considerable amount available for export.

In the Southwest fully 50 per cent of the receipts of seed have been damaged, equal to from 1 to 10 cents per bushel.

At freight rates of October 13, it cost about 21 cents to lay flaxseed down from Duluth at Antwerp; but since then ocean tariffs have advanced that cost materially.

The National Linseed Oil Company's reorganization is assured. The Olcott committee is in charge. The plan of reorganization will not be announced, however, until the accountants have finished their work.

Final estimates by the Duluth Record give North Dakota an acreage of 450,000, at least, with a possible 480,000, although the agricultural department of the state puts it at only 400,000, estimating on assessors' returns. The yield is even more indefinite.

Flaxseed receipts for October were below the record mark of 1896, but reached a total of 4,988,000 bushels at the primary markets, compared with 2,238,000 bushels in 1897. The receipts for the first three months of this crop year to November 1 were 9,077,000 bushels.

October 20 was the biggest flaxseed day in Chicago, since the collapse of the National Linseed Oil Co.'s deal weeks ago. May advanced about 8¾ cents, losing, however, all but 1¾ cents of the advance by the close. The spurt was caused by very bullish news from the Argentine.

The heavy rains of the past four weeks are charged with damaging the Northwestern flaxseed crop, which, being late, was caught in the fields. It is estimated the shrinkage from this cause will reach a million bushels. The greatest loss will be in the grade. In Manitoba the conditions are said to be worse than in the States, although in North Dakota at least 60 per cent of the flax lay out during the weather. Manitoba reports of damage generally during the storms are now known to have been exaggerated, however.

EXPORT PRICES FOR GRAIN.

Not only has the proportion of our principal cereal crops going abroad shown a gratifying gain, says the Orange Judd Farmer, but the prices paid by foreigners have ruled higher the past season than any since the period following the short crop of 1894. So far as wheat is concerned the average export value is very much greater than in any recent year. The gain is not notable in corn, which in fact is selling at very moderate figures, this forming a chief reason for our unprecedented sales abroad; yet foreign buyers are paying more for this than at any time since the season following the short crop of 1894. The following table, compiled from official sources, shows the

	AVERAGE EXPORT VALUES OF CEREALS.		
	Wheat.	Corn.	Oats.
Ten months.....	93.6	34.5	28.6
1897.....	75.3	30.4	24.9
1896.....	65.4	37.8	26.8
1895.....	56.2	52.9	35.2
1894.....	66.0	46.2	30.3
1893.....	75.4	53.4	39.9
1892.....	74.4	54.9	40.7
1891.....	93.2	57.3	42.6
1890.....	83.2	41.8	32.9
1885.....	86.1	54.0	37.9
1880.....	124.3	54.3	....
1875.....	97.8	73.7	....
1873.....	116.3	54.3	....
1868.....	137.	84.4	....
1865.....	124.8	83.8	....
1862.....	100.8	40.2	....

A farmer in McLean County, Ill., has been exhibiting two ears of new corn measuring 12 and 14½ inches respectively. He has 50 acres of corn which he thinks will yield 60 to 70 bushels per acre.

The Exchanges

The new building at Winnipeg, to be occupied by the Grain Exchange, is about completed.

The Montreal Corn Exchange is opposing the proposition of a city license fee of \$400 for brokers.

A. W. Green, attorney for the Chicago Board of Trade, is about to give up his position. His successor has not yet been decided upon.

The Grain Committee of the New Orleans Board of Trade has appointed E. L. Mallory, an assistant inspector, to the position of assistant chief inspector.

The directors of the Chicago Board of Trade have authorized the Warehouse Committee to proceed at once with such cases as it has ready for trial, for the purpose of testing the warehouse law.

The Kansas City Board of Trade, through the contributions of its members, has given about \$1,800 for the new convention hall to be built in that city. This hall will be used to attract conventions to that city.

At a recent meeting of the board of directors of the Baltimore Chamber of Commerce, a resolution was passed condemning the recommendation that the Welland Canal tolls be abolished. The resolution declares that the abolition of these tolls would act detrimentally on the trade of Atlantic seaboard cities in the United States.

At a recent meeting of the directors of the Chicago Board of Trade, the finance committee was directed to furnish the bucketshop committee with all the funds necessary to carry on the campaign now under way against the bucket shops. There is said to be a unanimity of feeling on the subject that will result in vigorous work by this committee.

The Grain Committee of the New York Produce Exchange has abolished the charge of one-half cent a bushel, which by a usage of the trade has been charged on grain stored in railroad elevators, because such grain is entitled to free lighterage to ocean steamships. The abolishment of the charge is looked upon as a first step in the movement to reduce port charges in order to attract larger shipments.

A committee of five members of the New York Produce Exchange was appointed at a recent meeting of the exchange to consult with the Board of Managers and ask that the rules against puts and calls be rescinded. The argument which the committee used before the board was that puts and calls are part of the legitimate machinery of business; that the trade desired to be able to purchase these privileges as a means of insurance against cable offers to Europe of grain for export.

At the meeting of the Executive Council of the Board of Trade of Philadelphia last month, the committee on Foreign and Coastwise Commerce on its labors in behalf of building up the American merchant marine. The Committee on Inland Transportation reported having protested to the Interstate Commerce Commission against the abolition of tolls on the Welland and St. Lawrence River canals. Vice-President Perot differed from this opinion, holding that they would build up the shipping of American ports on Lake Ontario.

EFFECT OF WESTERN COMPETITION ON EASTERN FARMERS.

Certain branches of agriculture are clearly on the decline in the New England states, but the agricultural statistics furnished by the state census, taken in Massachusetts in 1895, show that in the aggregate the agricultural interests of the state are holding their own, the year 1895 showing a net gain over 1885 of 10.73 per cent.

There were marked losses during the decade in the production of cereals and meats, but dairy, hothouse and hotbed products, poultry and nursery products increased. In other words, the Massachusetts farmers have left off raising grain and cattle and are supplying milk, fruit, eggs and chickens and garden vegetables for the population of the villages and cities.

This process of agricultural readjustment is going on in all the states east of the Mississippi Valley, and the states that are most progressive in this line are making the best showing in agricultural prosperity. The East can't grow wheat, even cattle and swine, in competition with the great West, but it can supply its rapidly increasing urban population with produce, and the Massachusetts farmers have found out that it is worth while to do it.—Philadelphia Times.

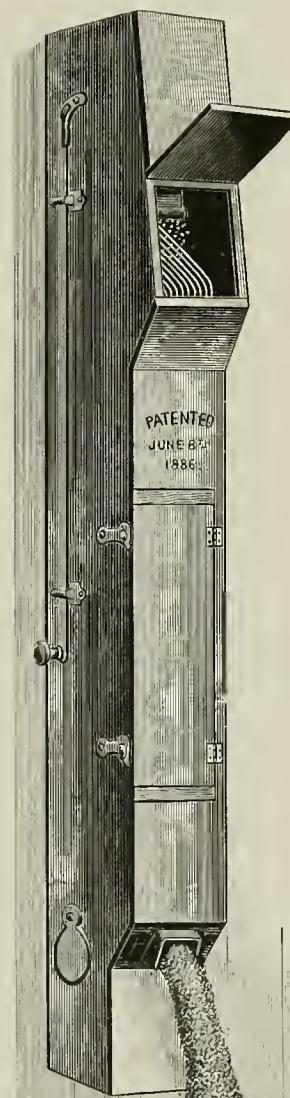
There is an item connected with the above that the Times has not included. The West is rapidly coming forward in the production of the exceptions

mentioned, especially butter and eggs and poultry. A larger population near the place of product is the temporary advantage of the Eastern producer. Transportation facilities, the comparative cheapness and much greater productivity of the land are circumstances that have already made the Western man a formidable competitor of the Eastern hen-raiser and buttermaker.—Corn Belt.

THE KASPER SELF-ACTING GRAIN CLEANER.

The elevator owner who thoroughly cleans his grain before sending it to market finds his profits at the close of the year much greater than does the dealer who makes no effort to place his grain in a marketable condition before shipping it. Grain is now, in all the large centers, carefully graded by experts. On this account it is well worth while for the dealer to send his grain to market in as good condition as possible. The difference in price between one grade even aggregates no small item in figuring up the total of car lot shipments.

Thomas Whitfield of Chicago has been manufacturing for a number of years a gravity grain cleaner



THE KASPER GRAIN CLEANER.

which is claimed to do perfect work and which is a valuable addition to an elevator equipment. A cut of the cleaner is shown in the illustration. It cleans all kinds of grain and requires no power for its operation. It is only necessary to place the cleaner below the shipping bin and run the grain to be cleaned through it before sending it to market.

The machine is exceedingly plain and simple in its operation, and has nothing about it that is complicated or liable to be broken or displaced. It consists of a wooden or metallic frame, having a series of screens arranged in a zigzag channel, extending from the top of the case to the discharge spout below. Between the sides of the case and the grain channel are spouts through which the dust and dirt are thrown off by the screens and separator and pass to the bottom of the case. The coarse dirt and trash are carried off by the separator at the top, which receives the grain from the bin or hopper above. The entire operation is by the force of gravity in the falling grain itself, which, dashing from screen to screen, in its descent completely scouring itself of all impurities and passes out through the spout thoroughly cleansed and purified. Oats and other grains are thoroughly cleaned of dust, sand, gravel, bugs, wild mustard seed, weed seeds, and clippings from clipped grain. Flax is separated from wheat and other grains.

The cleaner was given the highest award at the World's Columbian Exposition, and the manufacturer claims that it produces the important essentials of clean grain and better prices, clean seed and good crops.

Items from Abroad

E. Baily & Son is a new grain firm, operating at Frome, Bristol, Southampton, etc., with a capital of £35,000.

The London Statist figures the wheat crop of the world at 2,640 million bushels, and consumption at 2,480 millions.

The Australian farmers are clamoring for more grain warehouses on the railways, to be built by the government, the storage to be free.

The Argentine government estimates show that wheat and corn crops are exceedingly promising. The locust damage has been insignificant.

French farmers' deliveries of new wheat at the markets have been surprisingly large. The English farmers, however, have been slow in this respect.

Argentine exports of flaxseed for the first eight months of 1898 were 149,802 tons, against 166,479 tons in 1897. Of hay, the exports were 524,611 bales, against 533,117 bales in 1897.

The extreme dry weather abroad has been succeeded by superabundant rains, which have delayed fall plowing and seeding, both in England and on the Continent. In England the seeding is the latest ever known.

The uncertainty of what the Argentine can or will do as an exporter is illustrated by the fact that while she exported 56 million bushels of wheat a few years ago, last year she exported but 1,720,000 bushels.

There is some friction in the grain trade at Glasgow, owing to a change in the berthing of grain-discharging vessels. The cost of the change amounts to an increased charge on the receivers of about \$35,000 a year.

United States exports to Natal, South Africa, 1898, included the following: Barley, \$380; beans and peas, \$2,672; corn, \$46,120; oats, \$28,094; wheat, \$91,943; flour, \$501,527. This is a large reduction of flour and corn especially from trade of 1897.

Steamer advices from Sydney, N. S. W., with date to October 8, have it that hot winds have caused much damage to the Australian wheat fields, so much so that the authorities now predict there will at best be no wheat to export. It was previously estimated that there would be 5,000,000 bushels for export.

The Manchester, England, people are well satisfied with what their ship canal is doing for that city as a grain port. Recently the first cargo of India wheat ever shipped direct to Manchester was unloaded—37,000 bags, in 2½ days. Several other cargoes from the East have unloaded on direct orders.

W. J. Harris, in a paper read before the Devon and Cornwall Chamber of Agriculture, estimated the value of native grain sold in the United Kingdom at £20,185,000 in 1892-97, and at £50,885,000 in 1872-77. The total of produce of every sort sold from English farms he gave as £175,308,400 in 1892-97, and as £249,148,000 in 1872-77.

The official Russian crop report estimates the wheat total at 404,000,000 bushels, against 285,000,000 bushels in 1897, and 365,000,000 bushels in 1896. The figures are surprising, but they come from Broomhall, a reputable authority, and are sent as official. The Russian rye total is just as significant as the wheat, 695,000,000 bushels, against 577,000,000 bushels last year, and suggesting anything but starvation or shortage.

English wheat yields range from 52 bushels, the highest, to 22 bushels, the lowest reported. Sixteen counties averaged 36 bushels per acre, 19 ranged between 30 and 48 bushels. In Scotland the highest wheat yield was 56 bushels. For all England the average wheat yield was about 35 bushels. For barley, England's average was about 37 bushels, Wales being below and Scotland above that figure. Of oats, England averaged about 45 bushels, with a top yield of 90 bushels (Kent). All these averages are above those for the ten years 1887-96.

Of the 175 carpenters at work on the big elevator in course of erection at Manitowoc, 50 stopped work on account of the extreme height of the building; yet 50 more feet are to be added to the height.

The grain export trade of Montreal up to October 1 increased over 33 per cent, as compared with last year; those of corn were more than doubled. The exports of wheat amounted to 5,593,772 bushels, against 6,227,032 bushels the corresponding period last year; corn 16,658,600 bushels, against 7,518,583 bushels; peas 1,128,270 bushels, against 1,119,240 bushels; oats 5,382,248 bushels, against 3,825,416 bushels; rye 802,668 bushels, against 434,176 bushels; barley 319,354 bushels, against 136,840 bushels.

CROP REPORTS

[Readers will confer a favor by sending us reports each month of the acreage and condition of growing crops, the amount of grain and hay in farmers' hands and stocks in store, for publication in this department.]

The grain crop in Gallatin Valley, Montana, was not so large as it was last year, but has averaged from 30 to 40 bushels of wheat, 40 to 50 of oats, and about the same of barley. All the grain is first class, being plump and heavy, with but few exceptions. The farmers are nearly all holding the grain for better prices.

The Red River Valley in Minnesota was in a bad state on November 1, owing to the heavy rains that had fallen in that territory. There was a small proportion of grain still in shock but much remained unthrashed and in the stack. Entire fields of flax were ruined by the rains, as it suffered much more than wheat.

In the northern part of Iowa corn looked well the first part of November, although in some parts of the state it was somewhat damaged by severe weather. For the state at large, however, the crop was little damaged. In Cerro Gordo County there was the best crop of corn, oats, rye, barley and hay that it had produced in 20 years.

In Missouri on November 1 wheat sowing was still being delayed by rains in some districts, principally in the southern sections, but over a large portion of the state it had been completed. Corn was being gathered, and in many counties there was complaint that it had been badly damaged by the wet weather. The first killing frost of the season occurred on October 14.

The corn crop in the northern part of Illinois will be enormous this year. The rains made fall plowing easy, and on November 1 there were very few fields left to be plowed. The fall seeding is growing nicely and will be in excellent condition for winter. It is estimated that this year's crop of corn will necessitate the building of many corn cribs, as last year's crop is yet in first hands.

The corn crop of Northern Indiana was badly damaged during the last two weeks of October by the heavy downpour of rain, which lasted almost continually during that time. Very little husking has been done, and the aggregate loss is expected to be very large. While the corn crop was hurt, however, conditions were first class for the germination and growth of wheat, of which a large acreage was planted. The grain has a good start and will be in good condition for the winter.

TEXAS CROP REPORT, November 1.—The drought continues throughout the state and the rainfall for October has been generally light. The ground is too dry for fall plowing, and a general rain is badly needed for all farming operations except for the saving of maturing crops. The continued dry weather is retarding wheat sowing and will reduce the acreage unless it rains soon. Early sown wheat is up and doing fairly well in localities, but generally suffering for rain. Winter oats are doing very well. Rice harvesting is completed, crop generally good. Corn gathering continues; yield good. The crop will soon be gathered. Other crops doing very well.

According to the crop reports of the Ontario Government, the average yield is 24.1 bushels to the acre, making a total yield of 25,305,890 bushels, against a yield last year of 23,988,051 bushels. Spring wheat, the average is put at 17.3 bushels, making a yield of 6,714,516 bushels, against 4,868,101 bushels. The Manitoba crop, the government estimate is 17.1 bushels to the acre, which, on a total area of 1,370,685 acres, would give a yield of 23,849,919 bushels, against an estimate last year of 18,250,000 bushels, and in addition to the Manitoba yield it is expected that the Northwest Territories will yield from 6,000,000 to 7,000,000 bushels, making a total yield of about 29,849,919 bushels of Manitoba wheat.

GOVERNMENT CROP REPORT, November 10.—The November report of the statistician of the Department of Agriculture gives 24.8 bushels as the average yield per acre of corn, according to the preliminary returns of the department's correspondents. The preliminary estimate last year was 23.7 bushels, and that of 1896, 27.3 bushels. The indicated yield in the principal corn states is as follows: Pennsylvania, 32; Ohio, 36; Indiana, 36; Illinois, 30; Iowa, 32; Missouri, 26; Kansas, 19, and Nebraska, 21. The average percentage of quality is 82.7, as compared with 86.3 in 1897 and 88.4 in 1896. Reports indicate that about 7.25 per cent of the crop of 1897 is still in the hands of the farmers.

The preliminary estimate of the average yield of buckwheat is 17.3 bushels per acre, against 20.7 bushels last year, and 18.7 bushels in 1896. The averages in New York and Pennsylvania, the two states of principal production, are 16.8 and 17.2 bushels per acre respectively. The average per-

centage of quality is 85.2, as compared with 94.3 in November of last year.

The estimated average yield of hay is 1.55 tons per acre, as compared with 1.42 tons last year. The present indicated average is the highest on record, and the crop of 1898 was unquestionably the largest ever gathered. In point of quality the average is 95.3, against 92.8 last year and 92.9 in 1896.

The special wheat investigation is approaching completion. It is believed that it will not only serve its primary purpose of indicating with approximate accuracy the wheat production of the present year, but will prove of permanent value to the department in its bearing upon the existing methods of reporting this important crop.

OHIO CROP REPORT, November 1.—The acreage of wheat seeded for the harvest of 1899 is the largest for a number of years, larger by about 400,000 acres than the area of last year. Generally speaking for the state, the plant is in good condition, with the fields well and evenly covered. There is considerable complaint of fly and grub working on some of the early sown, and damage will likely accrue from this cause. Frosts in the latter part of the month, it is hoped, have checked the ravages of the pests. Conditions are fair for wheat going into winter in good form.

Corn is not yielding up to the earlier estimates made. There is considerable that is poor in quality and not in condition to crib until sorted, being moldy and affected with dry rot. In some of the heavy corn growing counties, it is reported that about one-fifth of the corn is thrown out as unfit to go into the crib. This culled out corn is being fed, but where hog cholera prevails the farmers fear evil results from its feeding and are careful.

KENTUCKY CROP REPORT, November 1.—Wheat sowing was interrupted during October by the continued wet weather. In many counties the soil was too wet to cultivate for a period of three weeks, while in the most favored counties farmers were unable to proceed for a few days only without interruption by rain. At this date a large per cent of the acreage remains to be sown. Farmers generally had prepared their fallow land early and many seeded during the month of September. This early wheat has been the prey of Hessian fly and other insect enemies of the young wheat plant to such an extent that resowing of much of it has been found necessary. Where free from injury from insects early wheat has made phenomenal growth and some of it, in fact, has reached the "jointing" stage. A continuance of the growing season will soon render it liable to injury by the slightest freeze.

The condition of the crop averages 96 for the state. The highest average, 100 is shown in the southeastern district. In the central district the condition averages 95, and the average for the western district is 87. On Nov. 1, 1897, the condition for the state was 62, and for a corresponding date of 1896 the condition was 96. Preparations were begun for an unusually large acreage, but the injury to early wheat and the delay in getting the late wheat in the ground will affect the acreage and estimates to be made next month will be taken as final.

The estimated acreage at this date, taking the state, is 107, as compared with acreage of 1897. The largest increase is shown in the few counties of the southeastern district, where the crop is grown. Here the acreage is estimated at 117, as compared with 1897. The acreage in the central section is 103, and in the western 105, as compared with 1897.

The amount of corn damaged in shock and on stalk by wet weather is exceeding all predictions. A few correspondents estimate that 40 per cent of the crop is worthless, while the most conservative estimate the loss at 15 to 20 per cent. The ears are still very sappy and perfect maturity appears to have been prevented by the unusually moist season.

THE CORN MILLS AT DECATUR, ILL.

According to the Review of that city, the daily capacity of the Decatur mills using corn is as follows:

Decatur Cereal Mills.....	7,500 bushels.
Shellabarger M. & E. Co.....	5,000 bushels.
Suffern, Hunt & Co.....	2,500 bushels.
Decatur Milling Co.....	1,500 bushels.

The mill of Suffern, Hunt & Co. is included in the calculations here made, although it is not yet in operation. It will be running, however, in a short time. It is expected that its capacity will be increased in a short time after it is fully in operation. It is not generally known that a number of important food products are made from corn by the Decatur mills. Among the articles made for man are hominy, hominy grits, corn cones, three grades of corn flour and different grades of corn meal. Besides these one of the Decatur mills is also making extensively a flour for making pan-

cakes, which is composed of corn flour and wheat flour. Hominy feed and other kinds of cattle feed are also made.

COMMISSION

J. S. Purdy has opened a brokerage office in San Francisco, Cal.

The grain commission firm of Forrester, Baxter & Co. at St. Louis has been dissolved.

The J. G. Miltner Grain Co. of Wichita has opened an office in the Kansas City Board of Trade.

A branch office in Kansas City has been established by The H. Parker Grain Co. of McPherson, Kans.

B. E. Baker, a late member of the Duluth Board of Trade, has opened a grain and stock brokerage office in Superior, Wis.

The Bartlett Commission Co. of St. Louis has opened an office in Cincinnati, where Mr. Bartlett has been admitted as a member of the Exchange. J. G. Christy is his assistant.

H. C. Gray & Co., a prominent Chicago Board of Trade commission firm, failed recently. Mr. Gray for a number of years was a director of the board. He has been in ill health for some time.

Recent efforts to close the bucket shops in Montreal have failed. In rendering a judgment the judge said that it was no more illegal for a stock broker to deal in futures than for a farmer to sell in March his future crop.

The Butte Grain & Stock Exchange of Butte, Mont., and the Helena Stock & Grain Exchange of Helena have been consolidated under one general management, to be known as the Montana Grain and Stock Exchange. A branch of the exchange will be opened at Great Falls.

WHAT CAN BE MADE OF CORN.

Says the Enureka, Ill., Republican: Out at the camp grounds E. S. Fursman has a sample of corn products that to the uninitiated is simply marvelous, and yet he lacks many articles now manufactured from the stalk or kernels. At present he has sixty-four vials showing nearly as many different kinds of commercial products. He takes pleasure in exhibiting these to an interested people. The samples contain five or six different grades of sugar, three grades of syrup, five grades of laundry and food starch, vinegar, malt, whisky, hominy, two grades of corn meal, three grades of stock food, oil cake, pure olive oil, three grades of paint oil, two grades of grits, two grades of hominy, two of corn flour, hominy chop, five grades of dextrin, five of glucose, granulated gum, gluten meal, gum paste, crystallized anhydrid, confectioners' starch, British gum, climax feed, and last but not least in importance is a corn gum that is destined to take the place of India rubber in the manufacture of rubber goods, such as boots, shoes, coats and a hundred other different articles of daily use now depending upon the supply from the tropical regions. Mr. Fursman is a champion of corn and corn products.

LOUISVILLE GRADES OF CORN.

White Corn—Sound, dry, reasonably clean, may contain a limited quantity of colored grains, not exceeding 5 per cent.

No. 2 White Corn—Dry, reasonably sound and clean, may contain a limited quantity of colored grains, not exceeding 10 per cent.

No. 3 White Corn—Corn which is slightly damp, but in all other respects equal to No. 2 white corn.

No. 4 White Corn—Shall contain not exceeding 12½ per cent. of colored grains, reasonably sound, dry and clean, but not sound enough to grade No. 3 white.

No. 2 Yellow Corn—To be sound, dry, clean, merchantable, pure yellow corn.

High Mixed Corn—Sound, dry, reasonably clean, merchantable corn, and not less than three-fourths yellow.

No. 2 Corn—Dry, reasonably sound and clean, merchantable corn.

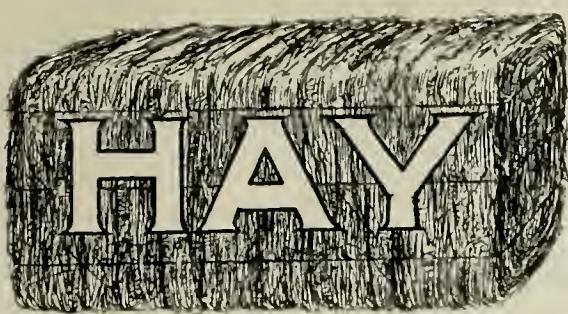
New Mixed Corn—All mixed corn slightly damp, but in other respects equal to No. 2 corn.

No. 3 Corn—Corn which is slightly damp, or not sufficiently sound to grade No. 2, reasonably clean.

No. 4 Corn—Damp, dirty or unsound corn, not good enough for No. 3 corn.

No Grade Corn—All corn unfit for warehousing, not good enough for No. 4 corn.

Ear Corn—Corn on the cob will take the same grades as shelled corn, with the word "ear" inserted, the inspection to be by breaking of cobs and hand-shelling as thoroughly as practicable. Corn inspected in this way will be subject to second inspection after partial unloading if desired by buyer.



W. M. Nixon's hay and grain store at Augusta, Ga., was burned October 29.

S. C. Walker, hay dealer at Louisville, Ky., suffered a loss from fire recently.

Wm. R. Handy has succeeded Handy & Mount, hay and feed dealers of Baltimore, Md.

Pierce, Baker & Co. of Dunbar, Pa., have commenced dealing in hay and straw, in addition to their grain, flour and feed business.

The failure of the hay crop in Great Britain has caused a much larger demand than usual for mashes, that product being used as a cattle food there.

Jay Whitbeck of New Scotland, N. Y., has leased the Callanan Hay Warehouse at Callanan, and will do a general commission business in hay, straw and grain.

A large stock of hay and grain was consumed in the fire which burned Nickerson, Spratt & Greely's flour and feed mill at Bar Harbor, Me., on November 5.

It is reported that a farmer in Henry County, Indiana, secured three crops of timothy from one field this season. The rain was so plentiful that the second crop was almost as abundant as the first, while the third, while not so large, made the very best of hay.

L. C. Hebbard, formerly of R. O. N. Ford & Son, dealers in hay, straw and grain at New York City, has opened an office in the New York Produce Exchange and will carry on a wholesale commission business in hay, straw and grain under the firm name of L. C. Hebbard & Co.

D. W. Clifton, president of the National Hay Association, has appointed the following committee on grades: Chairman, L. R. Ballard, St. Louis; F. W. Rundell, Toledo; F. M. Sheffield, Detroit; Arthur L. Clum, Brooklyn; W. A. McCaffrey, Pittsburgh; George S. Bridge, Chicago; Emory Kirwan, Baltimore.

We have received from F. F. Collins, secretary and treasurer of the National Hay Association, a complete report in book form of the fifth annual meeting of the Association, which was held at Buffalo, N. Y., August 9, 10 and 11. Copies of this report will be mailed to any dealer upon application to him.

The local committee at Detroit, Mich., of the National Hay Association is already making arrangements for taking care of the delegates and others who will attend the next annual convention which meets in that city. They have secured the Russell House as the association's headquarters during the week of the convention.

A very large class of hay receivers in New York are of the opinion that country shippers would do better to stop consigning hay and ship only when the commodity had been sold. This would have a tendency to keep up prices, as the market would not become glutted, as is now so often the case. If the hay was sold before it left the country it would be accepted and paid for at destination, and the commission man would do just as much business with a great deal less trouble.

The New York Central Railroad has announced that free lighterage will be granted for baled hay to be delivered from the Thirty-third Street hay sheds. The same advantages are enjoyed at the Hay Exchange Station on West Thirty-third Street as at the Erie hay sheds in Jersey City, N. J. Hay can now be shipped via the New York Central Railroad, landed at the hay sheds at Thirty-third street, unloaded, inspected, reloaded and lightered to its destination, anywhere in the harbor inside the lighterage limits, provided it is billed "lighterage free."

It is estimated that 110 carloads or about 1,200 tons of hay are received daily in New York City for export and local consumption. Very little has been sent to Europe this year, however, in comparison with other years. The reason for this is prohibitive freight rates, and heavy shipments of wheat, cotton, etc., which pay better rates, have crowded hay out. Besides Holland, France, Scotland and other foreign countries have large crops themselves, consequently there is very little foreign demand. Clover and clover mixed find most

favor in the European market. It is reported that at the present time transatlantic vessels will not accept a cargo of hay if they can get almost anything else.

Hay dealers of Bangor, Me., complain of a very poor business this year. In other years a considerable amount of hay was shipped from that point to Boston, but the bean eaters have been getting all of their hay from the West. The Maine Central Railroad, however, has reduced its freight rate on hay, and it is hoped that Bangor will occupy its old place as a good hay shipping point.

The action of the Chicago Car Association in enforcing a demurrage charge of \$1.00 upon Chicago dealers for each car remaining unloaded after 48 hours is still engrossing the attention of the hay men. It is almost impossible to unload a car of hay in so short a time, and no one cares to assume the ownership of the property when it is known that charges will be imposed upon it by the railroad association. As is well known the handling of hay is very different from handling grain. The railroads, the hay men also claim, are responsible themselves for considerable delay in not switching the cars to the team tracks when ordered to do so, because of lack of room. Hay dealers do not object to a limit of time being placed on their commodity, but they think that more consideration should be given them. At the request of the hay men and members of the Board of Trade, Attorney Robbins, who represents the Board, has given a written opinion to the effect that a railroad company has not fulfilled its obligation to a shipper of property until it has unloaded said property, and that demurrage cannot be charged on such articles as hay unless a suitable warehouseman is provided for unloading the same.

REVIEW OF CHICAGO HAY MARKET.

The prices ruling for hay in the Chicago market during the past three weeks, according to the Daily Trade Bulletin, were as follows:

During the week ending with October 22 the receipts were 3,685 tons, against 4,159 tons for the previous week. Shipments for the week were 83 tons, against 228 tons for the previous week. A steady to firm market was experienced throughout the week. The arrivals were moderate and the local demand quite good, all choice grades meeting with ready sale. Very little was done on shipping account. Sales of Choice Timothy ranged at \$8.25@8.75. No. 1, \$7.50@8.00; No. 2, \$6.75@7.00; No. 3, \$6.00@6.75; not graded, \$7.00@7.50; Choice Prairie, \$8.00@8.50; No. 1, \$7.00@7.50; No. 2, \$5.50@6.50; No. 3, \$5.00. Rye straw sold at \$5.25@6.00, and oat straw at \$3.75.

During the week ending October 29 the receipts were 3,029 tons, against 3,685 tons for the previous week, while the shipments were 55 tons, against 83 tons for the previous week. The arrivals were quite small during the week, scarcely enough arriving to supply the local trade, which was very good. A very firm feeling existed, and prices showed an advance of from 50 to 75 cents per ton. Sales of Choice Timothy ranged at \$8.50@9.50. No. 1, \$8.00@8.75; No. 2, \$7.00@7.50; not graded, \$6.50@7.50; Choice Prairie, \$8.00@9.00; No. 1, \$7.00@9.00; No. 2, \$5.25@6.00. Rye straw sold at \$6.00@6.50 and wheat straw at \$4.25.

During the week ending November 5 the receipts were 4,646 tons, against 3,029 tons for the previous week. Shipments were 50 tons, against 55 tons for the previous week. The market during the early part of the week was firm, especially for Prairie Hay. Arrivals were small and a good local inquiry existed. Prices ruled steady. Later the receipts were larger and the demand was only moderate. The market closed rather dull. Sales of Choice Timothy ranged at \$8.50@9.75. No. 1, \$8.00@9.00; No. 2, \$7.50@8.00; not graded, \$7.00@8.00; Choice Prairie, \$8.75@9.50; No. 1, \$8.00@9.00; No. 2, \$6.00@7.00; No. 3, \$5.00@6.00. Bedding hay, \$3.37½. Rye straw sold at \$6.50@7.25 and wheat straw at \$5.00@5.50.

OUR CALLERS

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

- A. S. Wilson, Pana, Ill.
- A. L. Forsha, Forsha, Kans.
- E. S. Johnson, Lowden, Iowa.
- A. Williamson, Paulina, Iowa.
- J. S. Leas, of Barnard & Leas Mfg. Co., Moline, Ill.
- Francis Forbes, of the U. S. Patent Commission, New York City.
- M. D. Beardslee, representing the Prinz & Rau Mfg. Co., Milwaukee, Wis.
- W. T. McCray, president Grain Dealers' National Association, Kentland, Ind.
- Geo. Cole, Indianapolis, Ind., representing the Prinz & Rau Mfg. Co., Milwaukee, Wis.

Late Patents

Issued on Oct. 11, 1898.

Gas Engine.—Lincoln H. Millen, Beatrice, Nebr., assignor of one-half to S. S. Sims, same place. Filed May 26, 1897. No. 612,047. See cut.

Gas or Oil Engine.—Frank S. Mead, Montreal, Canada. Filed June 25, 1897. No. 612,258. See cut.

Separator.—Robt. W. Jessup, San Francisco, Cal., assignor of one-half to F. H. Wheelan, same place. No. 612,243. Filed Nov. 2, 1897.

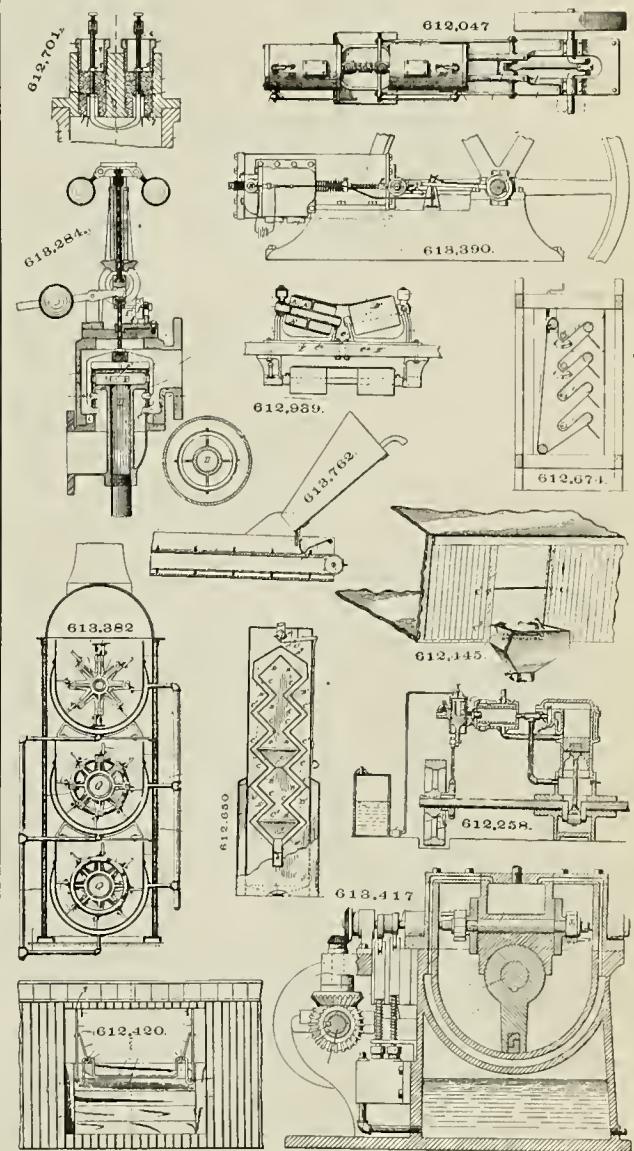
Issued on Oct. 18, 1898.

Grain Car Door.—S. L. Trneblood, Richmond, Va. Filed Oct. 1, 1897. No. 612,445. See cut.

Grain Door for Cars.—Christen J. Jeppesen, Centerburg, Ohio. Filed April 15, 1898. No. 612,420. See cut.

Seed Cleaner.—Wm. A. Rice, Jerseyville, Ill. Filed Oct. 29, 1897. No. 612,674. See cut.

Igniter or Sparker for Gas, Oil or Vapor Engines.—Frank W. Canfield, Manistee, Mich. Filed Aug. 5, 1897. No. 612,701. See cut.



Horse Power.—Edwin Lambert, Dixon, Wyo. Filed Sept. 7, 1897. No. 612,739.

Separator.—Albert R. Penprase, Duluth, Minn., assignor to Byron G. Segog, John F. Segog and Basil D. Brown, same place. No. 612,650. Filed April 1, 1897. See cut.

Issued on Oct. 25, 1898.

Chute for Bins.—Lucius E. Cochran, Youngstown, Ohio. Filed Aug. 30, 1898. No. 613,026.

Conveyor.—F. R. Willson Jr., Columbus, Ohio, assignor to Jos. A. Jeffrey, same place. Filed July 25, 1898. No. 612,939. See cut.

Issued on Nov. 1, 1898.

Gas Engine.—Davis D. Hobbs, Cleveland, Ohio, assignor to the Monarch Duplex Engine Co. Filed Nov. 16, 1896. No. 613,417. See cut.

Gas Engine.—Fred C. Olin, Buffalo, N. Y., assignor to the Olin Gas Engine Co., same place. Filed Sept. 21, 1897. No. 613,390. See cut.

Supply Controlling Mechanism for Gas Engines.—John S. Klein, Oil City, Pa. Filed Dec. 31, 1897. No. 613,284. See cut.

Grain Dryer.—Otto Meinhausen, Chicago, Ill. Filed Jan. 17, 1898. No. 613,382. See cut.

Issued on Nov. 8, 1898.

Corn Conveyor.—Frank Gahm, Ransom, Ill. Filed June 15, 1898. No. 613,762. See cut.

Fires - Casualties

The grain elevator at Airlie, Minn., owned by the W. W. Cargill Co., was blown down on October 11 in a high wind.

L. M. Casebeer's grain elevator at Hillsdale, Ind., was burned at 3 a. m., October 21. Loss, \$2,000; insurance, \$1,000.

The grain warehouse at Chattanooga, Tenn., occupied by T. H. Cheek & Co., has been burned. Loss, \$5,000; fully insured.

Herman Volmann, an employe in the grain elevator at Rice Station, Minn., was killed on October 26 by being caught on a shaft.

O. L. Brinning's grain elevator at Leroy, Ill., has been burned. Loss on building, \$5,000. A large quantity of corn was burned.

The grain elevator at Risk, Ill., burned at 1 a. m., November 1. About 6,000 bushels of oats and a large quantity of corn was burned.

The grain elevator of J. Doon & Son at Natick, Mass., was destroyed by fire at midnight November 1. Loss, \$15,000; insurance, \$10,000.

Parish & Co.'s grain warehouse at Wilbur, Wash., began breaking down when only about two-thirds full recently, owing to a defective foundation.

The Middle Division Grain Co.'s elevator at Wallula, Ill., collapsed recently and about three carloads of shelled corn rolled out upon the ground.

The south side of the addition to L. J. Michell's grain elevator at Lake City, Iowa, fell out October 16, exposing several thousand bushels of oats to the rain.

The grain warehouse at 2041 Hope Street, Philadelphia, Pa., occupied by John B. Boyce & Co., received damages amounting to \$2,000 from fire recently.

The gasoline engine in C. G. Sauer's grain elevator at Dana, Ill., exploded recently, but prompt work on the part of the elevator employees prevented a conflagration.

The large grain elevator and flour mill of Kiddoo Bros. & Co. at Neosho, Mo., was burned at 10 p. m., October 24. The loss was estimated at \$20,000, with \$10,000 insurance.

The grain elevator of P. & J. Ver Hage at Zeeland, Mich., was seen to be on fire one night recently, but the blaze was extinguished before any damage had been done.

The floor and bins in the east part of Hubbard & Palmer's grain elevator at Valley Springs, S. Dak., collapsed recently, letting about 10,000 bushels of wheat out upon the ground.

Artemas J. Battie, of the grain firm of Battie & Shoven of West Orange, Mass., was severely injured recently by being thrown from a grain wagon hitched to a runaway team.

A. B. Caldwell's grain elevator at Langham, Ill., was burned at noon, November 7. The building was completely destroyed, together with 9,000 bushels of grain. It was insured for \$1,000.

The Northwestern Elevator Company's grain elevator at Albee, Minn., was burned on the afternoon of October 25. The fire caught from a chimney. About 30,000 bushels of wheat were consumed.

The southeast corner of Orendorff & Culbertson's grain elevator at Delavan, Ill., fell out on October 14, and about 2,500 bushels of shelled corn fell out over the railway tracks. Only about 25 bushels of corn were lost through the accident.

Bingham Bros.' grain elevator at Lake Benton, Minn., was burned at 8 p. m., November 6. A large amount of grain was consumed. The fire was supposed to have been caused either by spontaneous combustion or by incendiaries.

The works of the National Starch Company at Glen Cove, Long Island, N. Y., were badly damaged by fire at 4:30 a. m., November 3. A large elevator, mill and warehouse were burned. The fire originated near the boilers. Loss, \$100,000; covered by insurance.

The large grain elevator and mill of the MacKenzie-Winslow Cold Storage & Warehouse Company at Fall River, Mass., was damaged by fire at 5 p. m., October 28. About 12,000 bushels of grain were consumed. It was thought the fire originated from spontaneous combustion. The greatest damage was done to the mill and engine house. The loss was fully covered by insurance.

The Garrison Milling & Elevator Co.'s grain elevator and flour mill at Hooper, Colo., was burned at 4 a. m., October 9. The fire was supposed to have been of incendiary origin. The elevator has a capacity of 125,000 bushels of grain and the mill a capacity of 175 barrels daily. Loss on buildings and

machinery, \$60,000, and on stock, \$25,000. The loss was about one-half covered by insurance. The plant will be rebuilt.

A large grain elevator at Charleston Station, about 8 miles from Hagerstown, Md., was burned at 11 a. m., November 7; a large quantity of wheat was burned. The fire broke out in the upper part of the elevator. Loss, \$10,000; insurance, \$6,000.

One of the large bins in the rear of the warehouse of the F. C. Ayres Mercantile Company of Denver, Colo., gave way on the afternoon of October 29, and about 6,000 bushels of wheat spread out over the floor of the warehouse. The damage amounted to about \$50.

H. P. Pillsbury's grain and feed storage warehouse at Washington, D. C., was badly damaged by fire at 6 p. m., October 23. A large amount of wheat and rye straw was destroyed. The fire was supposed to have originated from spontaneous combustion. Loss, \$4,000; fully insured.

Lewis Prell's large grain elevator at Columbus, Kan., was burned at 7 p. m., October 17. It was thought the fire originated in the engine room. The building was a frame structure and was covered with galvanized corrugated iron. Loss, \$8,000, with insurance of about half that amount.

W. P. Sallady's grain elevator at Ashville, Ohio, was burned at 10 p. m., October 15. The fire caught in the top story and it was supposed it started from a spark falling from a passing engine. About 3,000 bushels of grain were destroyed. Loss, \$9,500; insurance, \$5,000 on building and \$1,000 on grain.

The grain elevator of A. J. Speers at Edelstein, Ill., collapsed at 10 a. m., November 3. The entire end and side next to the railroad fell outward and about 10,000 bushels of shelled corn poured out over the ground. There were a number of teams and men in the vicinity, but fortunately no one was injured.

Michael Hanley was killed recently while at work in connection with the rebuilding of Armour's grain elevator at Twenty-second and Morgan streets, Chicago. He was digging a trench near the elevator and had broken the earth around a telegraph post to such an extent that it toppled over, fell upon him and killed him.

A scaffold at the old Union Elevator at East St. Louis, Ill., which is being rebuilt, gave way on the morning of October 19, and 18 men who were standing upon it fell a distance of 10 feet to the ground. Thomas F. Brown, a carpenter, had his right arm broken and George H. Schultz, also a carpenter, suffered a dislocation of his hip.

The Trumbull Seed Company's 5-story brick warehouse at Kansas City, Mo., was badly damaged by fire recently. The fire started on the fifth floor from the explosion of a kerosene lamp. Two employees were taking an inventory of the stock on this floor and were lighted by an old lamp. It fell from a box on which it had been placed and instantly exploded, the burning oil igniting the dry seeds and boxes, which were near. Prompt and effective work by the city fire department confined the fire to the fourth and fifth floors. The Trumbull Seed Company's stock was valued at \$25,000 and was insured for \$18,000. The loss on stock was placed at \$5,000.

CORN MOVEMENT VIA BALTIMORE.

The movement of corn to Baltimore from Chicago during October was great enough to attract a good deal of attention. The new deal in the management of the Baltimore & Ohio road may or may not have been at the bottom of it; but for some reason a very large part of the corn going East by rail from both Chicago and Kansas City took that route. The rate was evidently low, but there was more "wood-sawing" than talking about the real facts by those who knew them. Gambrill is credited with moving 4,000,000 bushels by that route, the stuff going through on Kansas City inspection.

But the other roads have been getting business, too—the Pennsylvania particularly, which is to take 3,000,000 bushels from Chicago to Baltimore on Kansas City inspection for Parr, while Parr and Gill-Fisher are moving an equal amount from Kansas City via St. Louis over the Baltimore & Ohio and the Pennsylvania to Baltimore. Scattering concerns are moving about 1,500,000 bushels additional through Baltimore, some of it by the Baltimore & Ohio and some by the Pennsylvania; some of it through Chicago and some through St. Louis. This makes over 11,000,000 bushels grain destined East all rail by October 29, all of it under contract to Baltimore houses and more than half of it through two concerns. No one knows the rate, but it's good guessing that it is all right.

The Minnesota grain inspection office reported receipts for fees for October about \$25,000.

OBITUARY

Julius E. Hansen, a lumber and grain merchant of De Forest, Wis., is dead.

J. Crawford Eddy, of the grain and feed firm of Daniel Eddy & Sons, Saratoga Springs, N. Y., died recently.

Samuel Norrish of Hastings, Minn., is dead. He had large elevator and grain interests in Minnesota and North Dakota.

Ellis Akey, one of the oldest grain dealers in Ohio, died at his home at Bellefontaine, Ohio, on November 1 at the age of 80 years.

Thos. Fitts, who for a number of years was engaged in the grain business in Charlton, Mass., died there last month, aged 71 years.

Lawrence Ganz, an old resident of Kansas City, Mo., died there on October 8, aged 83 years. He formerly held positions with the Missouri Elevator Co.

Hon. Jacob C. Lamb died at Imlay City, Mich., on October 21, aged 71 years. Deceased was an old resident of that community, and was interested in a milling and elevator business.

Theodore Lockwood fell dead from heart disease in his office at Elk City, Kans., November 4. Mr. Lockwood had been in the grain business for years and had elevators at several places in that section of Kansas.

Capt. James Crowell died at West Dennis, Mass., on October 24. Captain Crowell was born in that village in 1832. He followed the sea until 48 years of age. For many years past he had been engaged in the grain and coal business.

Celestin Lazarus died October 15 at his home in Chicago. He was born in France in 1843 and came to Chicago at an early age. He was one of the original directors of the Board of Trade, and was connected with it for 22 years.

Edwin M. Bright, aged 25 years, died at his home in New Orleans, La., on October 28. For the past seven years he had been in the employ of Chas. F. Orthwein & Sons, grain exporters. He was a very bright and capable young man, and had published a cypher code which finds much favor in the grain trade.

Jesse B. Young died at Mt. Kisco, N. Y., October 30, in his fifty-sixth year. The cause of death was cancer of the mouth, from which he had suffered for 20 years. He had sold grain and feed along the Harlem Railroad for 24 years. The past four years he was in business with his brother under the firm name of J. B. Young & Co.

Elijah A. Winn died at Amboy, Ill., on October 10. He was born at Cohocton, N. Y., Jan. 3, 1833, and served during the rebellion in Co. D. One Hundred and Forty-second Illinois Volunteer Infantry. In 1865 he engaged in the grain and stock business at Amboy, where, with the exception of five years, he spent the balance of his life.

Emory M. Van Tassel, a wealthy grain merchant of New York City, died on November 2. He was born in Westchester County in that state in 1824, and was one of the oldest members of the New York Produce Exchange. In 1855 he started a grain and elevating business at Pier 39, North River, where he continued until 1889, when he built a large elevator at the foot of West Eleventh Street.



THE FARMER AND HIS STORED WHEAT.

Many country elevators contain December and May wheat and not the actual grain.

—Zahn's Circular.

PRESS



COMMENT

A GENIAL KID.

Brother Murray of the Cincinnati Price Current is a genial and convivial kid of 61 years, but white hair and beard have stamped upon him a more venerable appearance, but the man who stirs him into a written controversy generally ascertains his mistake.—Toledo Daily Report.

A WORD OF ADVICE.

While it is gratifying that growers are able to hold their crop, in the sense that they are not forced to sell to pay pressing debts, it may be hoped that they will not push this ability too far. Insurance, warehouses charges and shrinkage will (or in most instances do) reduce to the minimum any profits likely to accrue from any rise in the price of wheat that is not foreshadowed by reasonable certainty by market conditions at this time—Portland Oregonian.

THEY WILL LOOK OUR WAY.

In the event of war anywhere in Europe the people over there know that they must depend upon the United States for supplies. There are other reasons, however, for the advance in the price of wheat. The European countries which draw upon the United States for grain are now able to see what their needs will be. Stocks are running short. Now that the war with Spain is over, if a war should start in Europe or in China the business of furnishing supplies would speedily become very active indeed in the United States.—Baltimore American.

It is reported that, despite the favorable showing of the Eastern crops, more than sixty steamers have been chartered within the past ten days to carry grain across the Atlantic, which is another indication that Russia will not be able to furnish its usual quota. More than that, it seems to show that the American farmer is sure of a foreign market, no matter what may be the condition of the world's grain crops.—Dalles (Ore.) Chronicle.

HE IS DEAD, YET LIVETH.

Joe Leiter is dead, financially speaking, but his soul goes marching on. The farmers who got a taste of his millions in their dollar wheat last winter are now stubborn in holding their 60-cent wheat this fall.—Winnipeg Commercial.

Young Mr. Leiter, whose spectacular manipulation of the wheat market a year or more ago cost him upward of \$6,000,000, has burst into literature with an able article on "Wheat and Its Distribution." If Mr. Leiter continues to keep his pen in hand it will not take him long to accumulate a set of "Complete Works."—New York Mail and Express.

Joe Leiter, who, in the wheat pit and as a "Napoleon of speculation," went up like a rocket and came down like a stick, writes about "Wheat" in the November Cosmopolitan; and the magazine publishers proudly boast of Joseph as "the only magazine contributor who ever spent five millions or so of dollars in fitting himself to write knowingly of his subject."—Syracuse Post.

JOINT TRAFFIC ASSOCIATION DECISION.

The [anti-trust] law pretends to render a public service, but fails. The associations pretend to render a service alike to shareholders and the public, but fail. Open, unmitigated, and undisguised competition would be better, no matter how destructive for a time to the railroads, because those who own them would then be forced to apply the only remedy that can possibly be effective. To talk of injurious results to the public is not sensible. The public would get cheap transportation at all events, and discriminations not more offensive or injurious than now exist, until the owners of railroads compel their managers to return to the first principle of honest business, and to seek success by impartial and faithful service of those who employ them.—New York Tribune.

As a matter of fact, has there ever been a time when rates were more savagely cut than during the time when the authority of the traffic association was supposed to be invulnerable? Necessity is the mother of invention, and necessity will drive railway managers to devise some plan by which they can restrain themselves from financial suicide. Men who have accomplished so much in other directions ought to be equal to a work like this.—Louisville Courier-Journal.

It is difficult to understand why the railroads should be so much concerned over these decisions by the highest court in the land forbidding them to get up traffic associations to maintain rates. Nobody knows better than the railroads do that the associations all go to pieces in a little while anyway, like a barbers' union. Their members can never for long resist the temptation to play each other false and attempt to steal each other's busi-

ness, while pretending to live up to the association rates. The court says that is illegal which the railroads have said was inoperative.—Chicago News.

THE CHEMISTRY OF THE CORN KERNEL.

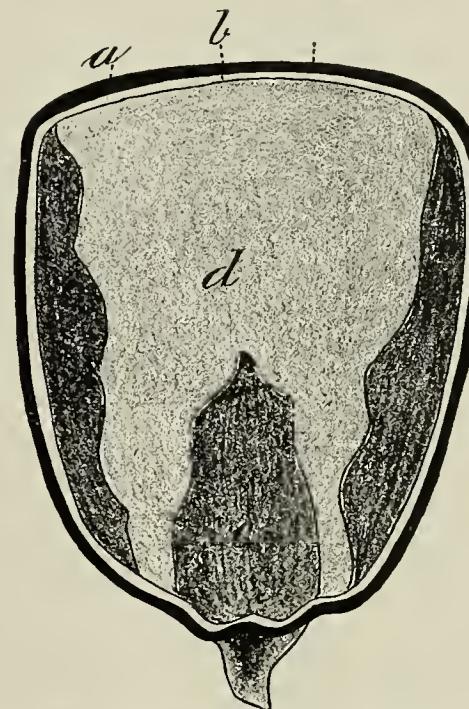
The Illinois Experiment Station has been giving special attention to Indian corn, including the chemistry of the kernel, the results of which experiments are embodied in Bulletin No. 53.

It appears that for analysis and examination, the corn kernel was separated by mechanical means into four different parts. These may be designated (see cut) as (a) the coat, or hull, or the kernel; (b) the hard glutinous layer underneath the hull, much thicker at the sides than at the crown; (c) the chit, or germ; and (d) the starchy matter constituting the chief body of the kernel. The germ is about 12 per cent of the kernel, but it contains nearly twice as much mineral matter and three or four times as much oil as all of the rest of the kernel. The germ is also rich in protein, but the chief part of that constituent is contained in the glutinous layer. The hulls and starchy portion of the kernel consist largely of carbohydrate bodies, the former containing a considerable amount in the form of fibrous matter.

The approximate composition of corn, as found by chemical analyses, reported by the Connecticut Station, is stated as follows:

Ash	1.39 per cent.
Protein	11.63 per cent.
Fat	5.27 per cent.
Carbohydrates	81.71 per cent.

Different varieties of corn give different results; and the variation of percentage is sometimes



quite considerable, especially of protein and carbohydrates. These differences are most clearly marked when the samples are grown under widely differing conditions. While the samples of a single variety grown under uniform conditions are remarkably uniform in composition, still, single ears from the same field will often show wide variations. The composition of the kernels of a particular ear is practically uniform.

The complete analysis of the ash of corn shows the following to be about its average composition: Phosphoric acid, 50 per cent; potash, 30 per cent; magnesia, 15 per cent; lime and silica, 2 per cent each; and small amounts of soda, iron, sulphur and chlorine. Analyses of the protein give the mean percentage of nitrogen as 16.04. The carbohydrates consist very largely of starch, of which corn contains over 65 per cent; and about 55 per cent are actually recovered in the commercial process of manufacturing starch from corn.

The oil of corn constitutes more than 5 per cent of the dry kernel. It is obtained in large quantities as a by-product in the manufacture of starch, glucose-sugar, etc. The pure oil is of a pale straw color and is not unpleasant to the taste, being used to some extent in place of olive oil in salad dressings. It is valuable as a lubricating oil, and is also used in soap manufacturing. The specific gravity of the oil is about 0.925, and it remains fluid at low temperatures. It remains unchanged at the ordinary temperature, but if heated at 100 degrees in contact with the air it slowly absorbs oxygen and changes to a dark-colored, semi-solid product, which finally undergoes some decomposition and gradually loses weight.

The average yield of oats on the great Sibley estate, in Central Illinois, on which there are 123 tenants, was 30 1/6 bushels per acre.

PERSONAL

George Lowe is buying grain at the elevator at Catlin, Ill.

James Coyne is managing Daniel Kennedy's grain elevator at De Kalb, Ill.

Math K. Mathisen is buying grain for Carrington, Hannah & Co. at Wilson, Ill.

Ed. Connor has been engaged as manager of Marsh & Co.'s grain elevator at Waldron, Mich.

Louis Sarlls has been appointed agent of the Henderson Elevator Co. at Mt. Vernon, Ind.

C. W. Jewell has accepted a position as manager of Risser Bros' grain elevator at Earl Park, Ill.

Dort Emmons of Chicago has taken charge of G. L. McLane's grain elevator at Edwardsburg, Mich.

William Hunter is buying wheat at Red Lake Falls, Minn., for the Monarch Elevator Co. of Minneapolis.

P. A. McGuire has resigned his position as local agent in W. W. Cargill & Co.'s grain elevator at Janesville, Wis.

Andrew Rintoul, a prominent grain dealer of Glasgow, Scotland, is visiting the large grain centers of this country.

Will Ihrke has accepted a position in the grain elevator at Dover, Minn., owned by the H. J. O'Neill Grain Company.

George W. Coffin, state grain inspector at Kansas City, Kan., was seriously ill the first part of November with typhoid fever.

Douglas S. Williams, an employee of Ross Hoekaday of Oreana, Ill., was married recently to Miss Hattie Irwin of Decatur, Ill.

Henry Reimers, formerly grain buyer at Bancroft, Iowa, for the Northwestern Elevator Co., is buying grain at George, Iowa.

Lyle Sharpneck of Council Bluffs, Iowa, has gone to Creston, Nebr., having secured a position as grain buyer for an elevator firm at that place.

George Whisler has removed from Appanoose County, Iowa, to Farragut, and has engaged with his brother in the grain business at that place.

Fred J. Hasch, an employee in the Rothschild Grain Co.'s elevator at Davenport, Iowa, was married recently to Miss Magdalena Miller of that city.

George F. Milbourne, grain dealer of Minden, Nebr., was a candidate for election to represent his district in the Nebraska State Legislature.

J. M. Maguire has removed from Wilson, Ill., to Camps, Ill., having taken charge of the grain elevator recently purchased by Maguire Bros. at that place.

Ernest Wight of the grain firm of Wight & Esdale of Montreal, Que., has returned to his business after being absent for some time on account of ill health.

Charles T. Duffie, of the grain firm of Duffie & Holt of Detroit, Mich., was a candidate for the Republican aldermanic nomination in the Fourteenth Ward of that city.

R. Stevens and Irving Cole, who have been employed during the past year in Peck & Black's grain elevator at Warren, R. I., have severed their connection with the firm.

James Monahan, a prosperous grain dealer of Wicken, Montana, was married on October 20 to Miss Elizabeth Cavanagh of Rockford, Ill., in which city Mr. Monahan formerly lived.

L. B. Wilson, traveling representative for Ware & Leland of Chicago, has just returned from a five weeks' trip in Iowa, and is again visiting his many friends in Illinois and Western Indiana.

W. H. Martin, who has been for some time manager of the stock department for Bartlett, Frazier & Co. of Chicago, has made arrangements to manage the grain department of John C. King & Co. of Chicago.

Col. George M. Monlon, of the Second Regiment Illinois Volunteers, and president of the Montlton-Starratt Co. of Chicago, received a mark of honor on October 26 from the Illinois Grand Chapter of Royal and Select Masters of Masonry. On that date his name, among four others, who entered the service of their country at the outbreak of the Spanish-American War, was inscribed on a roll of honor established by the chapter.

A farmer at Danville, Ind., on October 27, was said to have a field of oats in good condition for cutting. The regular crop for the season was harvested at the proper time, and the second yield came from the seed then dropped.

BARLEY AND MALT

BARLEY INSPECTION.

[A paper read by Mr. Julian Kune of Chicago at the annual meeting of the National Grain Dealers' Association, held at Chicago, Nov. 3, 1898. Illustrated by samples of barley referred to in the paper.]

Prior to 1871 the Board of Trade of the city of Chicago had control of the inspection of all the grain shipped to this market. During that year the Legislature, by an act passed on the 23d of April, and in force on the 1st of July of the same year, took the grain inspection out of the hands of the Board and instead intrusted it to a Board of Railroad and Warehouse Commissioners, the members of this Board being appointees of the Governor of the state, who also appoints the chief grain inspector.

The first warehouse commissioners, in adopting a set of rules governing the inspection of grain, largely copied after those then in force under the control of the Board of Trade. Since then, there have been many changes in the rules governing the inspection of corn, wheat and oats, but the rules governing the inspection of barley are virtually the same now as they were twenty-seven years ago. It is no wonder that these out-of-date rules, so poorly adapted to the present conditions of the barley trade, should cause such universal dissatisfaction among those whose business brings them in contact with that trade. Nor need we be surprised that those who have been and are still subject to annoyances and pecuniary losses on account of the prevailing faulty inspection should put the blame on the inspectors; who, however, are not to blame, for they do the best they can under the faulty system. Nothing but a radical change in the system can remedy the evil.

Several years ago, when there was as much option dealing in barley as there is now in oats, the grading of barley, as it now exists, was in some measure justifiable; for the speculative deals were based on the No. 2 grade, as they are on wheat, corn and oats. But such option deals in barley have long ago ceased to be a factor in the barley trade. All sales for future delivery, with but rare exceptions, are now made on the basis of the actual delivery of the grain. When that delivery is made the purchaser, be he a dealer, a maltster or a brewer, does not inquire how the delivered grain grades, but whether it is up to the sample bought by; also whether it will make choice, good or poor malt.

To illustrate the prevailing faulty inspection of barley, I will show you here a sample of barley that is inspected as No. 3; this barley sold on the 14th of October at 37 cents f. o. b. Chicago. Here is another sample which on that same day graded also as No. 3, but sold at 44 cents f. o. b. Chicago. Now can any of you tell me why both these cars, as represented by these samples, should have graded alike? The grading of either the one or the other must have been wrong. There certainly should not be a difference of 7 cents between barley grading alike. Undoubtedly, there is that difference in value, although the inspection did not indicate it.

To carry the illustration a step further: Let us suppose that country shipper A shipped the car which sold at 37 cents, and country shipper B, living at the same station, shipped the car which sold at 44 cents. Of course, both shippers were notified by their respective commission men of the grade as well as of the sale. A is very naturally dissatisfied that his No. 3 should bring 7 cents less than B's. If the difference had been only a cent or two, he probably would have said little, as he knew that his barley was inferior to that of B's; but he thinks seven cents is too much of a difference between barleys grading alike. If A's barley was No. 3, then B's should have been No. 2; or, if B's barley was justly No. 3, then A's should have been graded No. 4.

I will give you a still more striking illustration of our faulty barley inspection. On that same day another grain shipper from the same station with A and B, whom we will call C, sends a car of barley to our market to be sold. This barley grades No. 4 and is sold at 38 cents; or for a cent more than did A's No. 3 sell for. We can easily guess the righteous wrath of A when he learns—and, as you know, in the country Dame Rumor travels fast and easily—that C's No. 4 brought 1 cent more than his No. 3 barley. He comes to the conclusion that his commission man does not know much about selling barley anyway, and makes up his mind to send his next car to C's commission man. If he does this, he may have the same experience with the very first shipment to C's commission man.

Look at this sample of barley. It graded on the 27th of last month as No. 4, and sold for feed, it being entirely unfit for malting purposes. Here we have a car of feed barley grading the same as a car of malting barley, that sold at 38 cents.

One more illustration: Here is barley that

graded No. 3, and sold at 48 cents; while on the same day No. 2 in store was offered at 46 cents. Here is a difference in value of 11 cents between A's No. 3 and this No. 3.

But why dilate any longer on the many discordant features of our barley inspection? I believe I have cited enough instances to convince you that we need a change in the system.

The question is now, what changes must there be in the system, to make our inspection of barley practical, and to conform to the present requirements of the barley trade? Rule 6 of the Illinois state grain inspection in its first paragraph says: "No. 1 barley shall be sound and plump, bright, clean and free from other grain." The next paragraph reads: "No. 2 barley shall be of healthy color, not sound enough and plump enough for No. 1, reasonably clean and free from other grain."

Under the above quoted sections of Rule 6, it is almost next to impossible to get barley that would fulfill the above requirements. Who has ever heard, of late years, of barley inspecting in our market as No. 1? Even the grade of No. 2 is a great rarity. Why? Simply because the lines laid down, instead of guiding the inspector, only confuse him. So when he comes across a car of choice barley, he is at a loss to know whether to grade it 1, 2 or 3. But to be on the safe side he dubs the car No. 3, simply because of precedence, and because he does not recollect of any barley having graded No. 1 or No. 2. So the first and second paragraph, relating to the No. 1 grade, might just as well be eradicated from the rules.

The section relating to the No. 2 grade says that the barley "should be of a healthy color," etc. Now I doubt if any of our inspectors were ever instructed as to what constitutes a healthy color in barley. White is not always a healthy color in barley. Very often a straw color indicates a much healthier condition than a sickly white. Still, under the present system, the sickly white looking barley would get a higher grade than the straw colored. The inspector may not be aware of this fact, but the maltster knows it.

There is another rule touching the inspection of barley which has long ago become obsolete. I refer to that which speaks of "Scotch barley." Some twenty odd years ago, a certain variety of barley, coming originally from Scotland, was largely raised in the West, and, on account of its superior malting qualities, brought better prices than the ordinary varieties; but Scotch barley has become a thing of the memory. It does not exist largely enough to form a distinct class, and, therefore, the section referring to its inspection should be stricken from the rules, for it is only apt to confuse the inspector.

Having pointed out to you, to the best of my ability, the defects in our barley inspection, it now remains for you to agitate for a radical change. Meanwhile you will permit me to make a few suggestions in connection with the proposed changes. In place of the first section of Rule 6 as it now reads, I would have something similar to the following:

"Fancy" malting barley should be perfectly sound, plump, bright in color, free from seeds and other grain, and should test no less than 48 pounds to the measured bushel.

"Choice" malting barley shall be of a bright color, though it may contain a small percentage of sound straw colored barley, but this admixture not to exceed 10 per cent. It shall be free from unsound berries, especially such as have black ends; also reasonably free from other grain, as well as seeds, and plump enough to test no less than 46 pounds to the bushel. This I would have in place of Section 2 as it now reads.

The following should replace paragraph 3: "Good" malting barley shall be either of a straw color or of a healthy white, or of the two colors mixed in about equal proportions. It may contain unsound and black-tipped barley, not to exceed 5 per cent. It may also contain an admixture of other grain or seeds, not to exceed 5 per cent. It should be plump enough to test no less than 45 pounds to the bushel.

I would have next: "Fair" malting barley shall be all barley not good enough for "Good" barley or of such as is partly stained and contains more than 5 per cent of unsound and black-tipped berries, but not more than about 15 per cent. It may also contain an admixture of other grain and seeds, not exceeding 10 per cent. It shall have no test as to weight.

Next: "Low grade" malting barley shall be all barley not good enough for any of the higher grades. It may contain an admixture of 25 per cent of shrunken and unhealthy looking berries, whether that color be a sickly white or badly stained, and all barley containing more than 15 per cent of unsound and black-tipped berries.

Lastly: "Feed" barley shall be all barley unfit for malting, either on account of its being musty, unsound and containing a large admixture of other grain and seeds exceeding 25 per cent.

There might added also a "No Grade" barley, which should comprise screenings, and all barley which is very musty and rotten.

I believe that with a few practical lessons the inspectors would soon master the details of rules built upon lines as above suggested. The lines are well defined and not as undefined and vague as those on which the present system rests.

I would further suggest that the state grain inspection should be supplied with the most approved barley testers or germinators, as an aid in instructing the inspectors. At the beginning of each season the various grades of barley could be tested as to their fitness for making the various grades of malt. In this way the barley inspector would soon learn how to grade barley according to its merits for malting purposes.

The Des Moines Malt House, at Des Moines, Iowa, will be operated this season.

I. H. Harris of Bathgate, N. Dak., is building an addition to his elevator for barley only.

Wm. Hartig of Watertown, Wis., has bought the brewing and malting plant of the A. Fnermann Brewing Co. He will operate the malting plant.

The recent additions to the malting plant of Albert Schwil & Co., at 103d Street, Chicago, are now completed and will make it one of the finest malting plants in the country.

The Skillin & Richards Mfg. Co. of Chicago has furnished all the conveyors, shafting, pulleys, elevators, etc., for the Columbia Malting Co.'s new elevator at South Chicago, Ill.

The Independent Malting Company of Davenport, Iowa, will increase capital stock from \$50,000 to \$150,000, the new capital to be invested in enlargements and improvements.

Lorenzo Thenee of Oshkosh, Wis., is at the head of a new company who will buy barley at that point. They will load from wagons at present, but promise to build an elevator if the business warrants.

Mr. Hottelet, of the late firm of Hottelet & Kamm, Milwaukee, continues that business as Hottelet & Co. They handle malt and barley, as well as brewers' dried grains and malt sprouts for shipment to Europe.

The Ontario Malting Company of Oswego, N. Y., has been incorporated by Elliott B. Mott of Oswego and W. V. and R. H. Waite of Adams, N. Y.; capital, \$20,000. The company will operate the Lyon & Mott malt house at Oswego.

P. C. Kamm, late of Hottelet & Kamm, Milwaukee, is in business as P. C. Kamm & Co. He will operate the Jefferson malt house at Jefferson, Wis., and will also handle barley, as well as brewers' dried grains and malt sprouts for European markets.

The Burlington Malting Company has been incorporated at Burlington, Wis., by J. G. Miller, president; M. P. Petrie, secretary-treasurer, and W. Bellingshausen, manager. The company has purchased the house lately operated by Mr. Petrie, which has 150,000 bushels' capacity.

The L. Rosenheim Malt & Grain Company's malt house at Kewaskum, Wis., has been fitted up with the Galland-Henning system (12 drums), double its capacity. A steel tank storage system has also been added, giving the plant 125,000 bushels' storage room. They are said to be in the market for new malt and grain cleaning machinery, dust collector and grain scales.

The Northwestern Malt and Grain Company has let the contract for the elevator at Cragin, Chicago, and work on the foundations has begun. It will cost \$40,000. Next season a malt house will be erected at a cost of \$80,000. The malt house is to cover an irregular area 163x133 feet in extent, and the elevator is to cover 115x86 feet. The malt house will be on the Saladin Pneumatic System.

The California exports of barley this year come from Washington, whose crop is estimated at 40,000 tons, and whose barley is thus exported for the first time. This barley is said to be extra rich in saccharine matter, and it is believed that when its quality becomes as well known to foreign buyers as to local brewers, there will be a permanent export demand for it in place of the California Chevalier. Washington is peculiarly adapted to barley raising, which is now more profitable in that state than wheat.

The foreign barley crop this season is generally above the average in quality and quantity. The English crop is unusually satisfactory. On the Continent the harvest has been a good one, except in Sweden and Denmark. Turning to the thin types of barley, Onehaks are not so good as last year, says an English reviewer. Smyrnas show a large and useful crop, much of which has already gone into consumption. Tripolis and Algerians are fairly good, but most of the latter will likely go to France; while Russia and the Danube are showing some exceptionally bold barleys, and a large crop is reported, although variable in quality and quantity according to districts. Chile and California are the only important exporters that are below their average.

Court Decisions

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL B., of the Chicago Bar.]

Liability of Warehousemen in Oklahoma.

The authorities are without conflict in support of the proposition that at the common law a warehouseman was not liable as an insurer of the goods deposited, but was only liable for negligence or want of ordinary care in keeping and caring for deposits; and, if goods deposited were stolen or lost, there must be some evidence of negligence or want of ordinary care on the part of the warehouseman—some dereliction of duty on his part in relation to the goods—in order to make him liable to the owner for their loss.

After making this statement, the Supreme Court of Oklahoma goes on to say, in *Walker against Eickleberry*, 54 Pacific Reporter, 553, that the Oklahoma statute relating to deposits and depositary, which take the place of the common law relating to warehousemen, does not change the rule of liability, and that under those statutes the depositary or warehouseman is liable only for his failure to exercise ordinary care for the safety and preservation of that which is deposited or stored with him, and is not liable for the destruction of same by fire, where it is admitted that same was destroyed without negligence, or want of care on his part occasioned such fire.

Another point in this case for shippers of grain to note is that the court holds that a railroad corporation is not liable, under the Oklahoma statute, which provides that "any railroad company operating any line in this territory shall be liable for all damages sustained by fire originating from operating their road," for property destroyed by fire while in its possession as warehouseman; that the statute does not include within its provisions property in the possession of the company under express contract with the owner, or under the implied contract arising by law from the voluntary acts of the parties; and, in fact, that it does not include any property in regard to which the company occupies a contractual relation, either by express agreement or by implication of law.

Right to Unforeseen Surplus of Wheat Crop.

One man's being indebted to another on a note led to the making of a contract between them whereby the creditor agreed to rent certain premises of a third party, advance and pay the rental therefor, furnish the necessary grain to seed the same, advance the necessary money for harvesting the crop and furnish the necessary sacks for sacking the same; while the debtor agreed to plow and summer-fallow the land, sow the same to wheat with the seed furnished by the creditor, care for the crop until ready for harvesting, furnish the necessary assistance in harvesting the same, and to repay, out of the proceeds, all moneys advanced by the creditor as rent for said land, for seeding said land, for harvesting said crop, for sacking and hauling the same; and, if sufficient remained, to repay the sum due the creditor upon the said note. These comprised the mutual undertakings of the parties. A surplus was probably not in contemplation, but an unexpected yield produced one, and a lawsuit over the ownership thereof resulted.

The creditor contended that, having himself leased the premises upon which the crop was produced, he stood in the situation of the owner of the soil, and that, having furnished the seed for its production, he became the owner of the crop; and hence that the proceeds thereof were his, and could not inure to the use or benefit of the other party.

But the Supreme Court of Oregon declares that it was bad logic to say that the debtor would repay the creditor for disbursements, and a debt for money loaned, out of the proceeds of the creditor's own property, as there could be no discharge of obligations by such method. So it insists that there was ample ground for an inference of ownership of the crop in the debtor. And it holds, *Hargett v. Beardsley*, August 13, 1898, 54 Pacific Reporter, 203, that the ultimate effect of the contract was a leasing of the premises by the debtor from the creditor as if he was the owner thereof, and a payment to him of the stipulated rental for its use; and that the crop became the property of the debtor, as if he had rented the lands in the usual course, and paid a cash rent therefor.

Likewise, as to the further suggestion of the creditor, that, if he did not own the whole crop, the leasing was of joint concern, and that he and his debtor became tenants in common of the crops produced, the court holds against him. That relationship, it holds, could not exist under its interpretation of the contract, as above set forth, because a cash rental can never produce a tenancy in common between the landlord and tenant in the crop produced by the tenant, the landlord receiving his compensation, not in the product of the soil, but in money.

Owners and Insurers Can Remove What Is Good and Leave Refuse After Fire.

An apparently entirely new question, and one of considerable importance to elevator and warehouse men, has been passed upon by the Supreme Court of Georgia, in the case of the Savannah Steam Rice Mill Company v. Hull, 30 Southeastern Reporter, 952. When the case was argued before it, the court says that there was no authority presented on either side bearing directly upon the controlling question made in the record, and that it has itself been unable to find any. True, the subject-matter of the case was rice, but the principles of law evolved are undoubtedly the same as if it had been wheat.

The mill company alleged that its mill, granary and storehouse were destroyed by fire; that at the time of the fire it had on storage for various parties large quantities of rice; that the building was entirely destroyed, and the rice was partially destroyed, and became so mixed and commingled in consequence of the fire that it was impossible to identify the rice of the different parties; that certain persons, claiming to represent various insurance companies which had issued policies upon portions of the rice, immediately began, without its consent or knowledge, to remove the rice in its damaged and intermixed state, and save such was salable; that these persons were immediately notified that, if they undertook to remove any part of the rice they must remove it all, and not leave the refuse on the premises; that a similar notice was also given to the agents of such of the insurance companies as were known to have policies upon the rice, and in the notices given it was stated that the mill company would charge against the insurance companies and against the fund arising from the sale of the rice the expense of removing the refuse from the premises. Besides, the mill company attempted to sell this refuse for the benefit of all, but, it not being marketable, no sale could be effected. Then, the refuse being in a decaying condition, the mill company, under orders from the proper authorities of the city of Savannah, removed the same, at an expense of \$487.40.

The prayer of the mill company, on bringing this action, was to have its claim for the expense of removing the refuse rice declared to be a lien upon a fund of about \$1,500 realized from the sale of the rice which was removed by the representatives of the insurance companies.

First of all, to properly determine the case, the Supreme Court finds it necessary to ascertain what would be the rights of the parties if the owners of the building destroyed had had no insurance, and the owners of the contents were also without insurance on their property, because the stipulations in the policies held by the owners of the contents could in no way bind the owners of the building, or prejudice their rights, the sole purpose which they served being to show that the representatives of the insurance companies were authorized to do that which it was contended the owners would have had a right to do if the contracts of insurance had not been made.

Thus, the case resolved itself into a determination of the question as to whether a person who has deposited property in a warehouse, whether it be rice or wheat, or anything else, has the right, after its destruction by fire, to remove from the premises such of his property as would be useful to him, and leave such as was damaged or made useless by the fire.

A warehouseman has a lien upon the goods of his customers for the storage fees that have accrued upon them, but the court says that it knows of no law which gives him a lien for anything except the reasonable hire represented by the proper storage fees. Indeed, it was not contended here that the mill company had any lien at law, but it took the position that, under the facts of the case, equity would declare a lien in its favor.

It does seem hard, says the court, that the mill company, in addition to its loss by fire, should be compelled to bear the expense of removing from its premises the damaged property of its customers; but such cases of hardship are not uncommon, and they belong to that class which neither law nor equity can relieve against.

When the customer deposits his personal property, rice, wheat, or what not, with the warehouseman, the latter, continues the court, agrees to keep it, and return upon payment or tender of reasonable storage fees. The customer has the right to go upon the premises of the warehouseman, and remove his property whenever the sums due the warehouseman for hire are paid. That the warehouseman has lost his building by fire would not seem to interfere with this right of the customer, especially where the customer has lost part of his property by the same casualty. That the effect of the fire upon the customer is to damage part of his property, so that it would be valueless, and to leave another part that could be utilized, would not give the warehouseman any right to refuse to deliver such of the property as the customer desires. That the refuse or worthless part is still left upon

the premises of the warehouseman, and he is put to the expense necessary to remove the same, is simply one of the incidents of his business; and the burden must be borne by him, no matter how hard it may bear in a given case.

Furthermore, the court says, equitable liens can be set up only by reason of their analogy to a lien allowed under the same or similar conditions by the rules of law.

Following these principles, the court declares that it cannot see how the owner of a warehouse which has been destroyed by fire can be held to have an equitable lien upon that part of the property of his customers which is saved to reimburse him for loss on account of the removal by him of such part thereof as is damaged so as to be unsalable.

CRIBBING CORN.

Great care will be required this season in securing the corn crop. Because of the late season, wet weather and insect pests the crop is very uneven. Many fields had to be replanted, a number of them the second and third time. Although frost is later than usual, there will be much soft corn and the ripening in any one field will be very irregular. The rotten or partially rotten ears must be kept out of the crib or they will result in a deterioration of the entire crop. A good plan is to place on the back end of the wagon bed a large box into which these partially spoiled ears can be thrown at husking time. If then care is taken to pick out when unloading any that may have escaped, the crib will be practically free from damaged corn.

About cribs. Much corn is still stored in the old-fashioned rail pens. These should be placed in the open spots where the air can circulate freely and there are no trees to prevent drying after a rain. Build well off the ground, so that the floors of the cribs will be at least a foot above the surface. Then dogs can go under easily and little trouble will result from rats or other vermin. Do not attempt to build the cribs too high. Much extra work is thus made necessary in unloading and the wind has more effect on the roofs. Allow the cribs to remain open for several weeks, then cover with boards and fasten them down securely. Be especially careful to get a tight roof, otherwise the water will do much damage to the upper layers of corn. Of course, where board cribs are in use the cover is a permanent one and will prevent any water getting to the corn. These cribs are the best, but are more expensive, and while one or more should be built on every farm, the surplus corn which is hauled to market during the autumn and winter or early spring can be securely stored in cheap rail cribs. These board cribs should also be built well off the ground.—Orange Judd Farmer.

RECENT SALES OF ELEVATOR MACHINERY.

The following is a partial list of sales of elevator machinery made by the Barnard & Leas Mfg. Company, Moline, Ill., during the month of October:

Philip Smith, Sidney, Ohio; one No. 2 Cornwall Corn Cleaver, one No. 2 Victor Corn Sheller.

F. H. Hancock, Danbury, Iowa, one No. 2 Barnard Elevator Separator.

Webster Mfg. Co., Chicago, Ill., one No. 0 Victor Corn Sheller.

L. M. Myers & Co., Independence, Minn., one No. 32 Barnard Special Grain Separator.

Weller Mfg. Co., Chicago, Ill., one No. 2 Victor Corn Sheller, one No. 3 Cornwall Corn Cleaner.

Spencer Grain Co., McGregor, Iowa, one No. 5 Barnard Warehouse Separator.

E. H. Pease Mfg. Co., Racine, Wis., one No. 1 Little Victor Corn Sheller and Cleaner.

Philip Rahm, New Orleans, La., one Barnard Rice Huller, two Barnard Plantation Rice Hullers.

Canadian Pacific Railway Co., Ft. Williams, Ont., two No. 4 Baruard Elevator Separators.

Healy & Earl, New York City, N. Y., one Barnard Plantation Rice Huller.

Talladega Oil Mill Co., Talladega, Ala., one Cottonseed hull packer.

Cornelius Mill Furnishing Co., St. Louis, Mo., one No. 3 Barnard Elevator Separator.

Fairbanks, Morse & Co., Chicago, Ill., one No. 0 Cornwall Corn Cleaner, one No. 0 Victor Corn Sheller.

G. L. Squier Mfg. Co., Buffalo, N. Y., one Barnard Plantation Rice Huller.

Huntley Mfg. Co., Silver Creek, N. Y., one No. 0 Victor Corn Sheller.

English Supply Co., Kansas City, Mo., two No. 0 Victor Corn Shellers, two No. 0 Cornwall Corn Cleaners.

W. R. Dell & Son, London, Eng., six Barnard Plantation Rice Huller.

A company has been organized in Montana with capital of \$100,000 to build a mill to make paper from the white straw of the famous Gallatin County barley, of which there are this year no less than 26,000 tons on hand.

THE OAT INSPECTION AT MONTREAL.

The Montreal Trade Bulletin, in its issue of October 21, protests against the continual tampering with the local rules governing the standards of grain, and especially the change of standard for oats, "which had been raised to suit the Ontario dealers, owing to the exceptionally white color of their oats this season. The result is that the standard has been raised so that the bulk of the oats of the province of Quebec, which show a better quality than those of last year, now inspect No. 3, although they are virtually a better No. 2 than those which inspected No. 2 last season."

The rule is particularly severe upon and has caused heavy losses to country buyers, who accept a better quality of oats than those of last year as No. 2, but when they arrive in Montreal they only inspect No. 3, owing to the raising of the standard, as far as Quebec is concerned. Some Montreal dealers contend that each province should have its own inspection.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ELEVATORS WANTED.

Wanted, a line of four or five elevators in Illinois. Grain coming to Chicago. Address C. R. CLARK, 419 Rialto Bldg., Chicago.

POSITION AS SUPERINTENDENT WANTED.

Position wanted as superintendent or foreman of grain elevator, either large or small house. Thoroughly understand handling, grading and mixing of grain. Have had ample experience, and can furnish good references. Address

SUPERINTENDENT OR FOREMAN, Box 3, "American Elevator and Grain Trade," Chicago, Ill.

REPRESENTATIVES WANTED.

Millwrights, machinery dealers and manufacturers' agents wanted to represent us in their territory, on commission, for the sale of elevating, conveying and power transmitting machinery, mill and elevator supplies. Address

WELLER MFG. CO., 118 and 120 North Ave., Chicago, Ill.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

CORN CRIBBING OUTFIT.

For sale, a corn cribbing outfit on the Illinois Central Railroad. Scales, office and cribs for 40,000 bushels. Excellent location for an elevator.

E. G. GREENMAN, Champaign, Ill.

ELEVATOR IN THE GAS BELT.

For sale, one of the best elevators in one of the best grain sections of Indiana. Located in the gas belt, where fuel is almost free. Good reasons for selling. Address

INDIANA, Box 11, "American Elevator and Grain Trade," Chicago, Ill.

FAIRBANKS HOPPER SCALES.

We have six (6) 500-bushel Fairbanks Hopper Scales, with heavy iron pillars and wood caps, we bought at a sacrifice. We now offer, at a small advance, all or any of them. Guaranteed perfect and U. S. standard. Address

STANDARD SCALE & FIXTURES CO., 610 N. 4th St., St. Louis, Mo.

OHIO ELEVATOR.

I have for sale cheap a small grain house, suitable for handling corn, hay, wheat and produce; in a good territory. For full particulars, address N. H. HOLLAR, McGuffey, Ohio.

ELEVATOR AT AUCTION.

I will sell at auction, November 22, 1898, one of the best elevators in Central Illinois, and located in one of the best grain sections. The house has large capacity, with all first-class machinery. Reason for selling, old age. Liberal terms will be given.

LEVI RICHNER, Mansfield, Ill.

ROOFING AND SIDING.

The Garry Iron and Steel Roofing Co.,

168 MERWIN STREET, CLEVELAND, O.

MANUFACTURES



Steel Roofing,
Corrugated Iron,
Siding and Metal
Ceiling.

SEND
FOR CATALOGUE



Write us for Catalogue and
Low Prices on *best*
STEEL ROOFING, CORRU-
GATED IRON, ETC.

We are large manufacturers
of these goods and can save
you money.
SYKES STEEL ROOFING CO.,
611 So. Morgan St., Chicago, Ill.,
and Niles, Ohio

GUARANTY STORAGE WARRANT COMPANY.

Capital and Surplus, \$225,000.

OFFICES:

NO. 189 LA SALLE ST. (CALUMET BLDG.), CHICAGO.

STORAGE WARRANTS

Which are Used for Purposes of Sale or Collateral, Issued
on

Wheat, Oats, Corn, and Mill Products,

Contained in Owners'

ELEVATORS, WAREHOUSES AND CRIBS.

These Storage Warrants (sometimes called Warehouse Receipts), are used to secure loans and to facilitate the sale and delivery of the property they represent. They are especially well adapted to the grain trade where grain is carried at local railway stations and junction points; the property remaining where stored at nominal cost until price satisfactory to the warrant holder can be secured.

Write for Grain Dealers' Circular.

Golf Suits or Swell Clothes

May be worn at pleasure by the Four Hundred or the Four Thousand, at any one of the nine hundred and ninety-nine delightful summer resorts along the lines of the Chicago, Milwaukee & St. Paul Railway in the cool regions of Wisconsin, Minnesota, Iowa and Michigan, not omitting the famous Excelsior Springs of Missouri.

Within three hours' ride of Chicago are some of the most beautiful lakes and country resorts in Wisconsin. Oconomowoc, Waukesha and Delevan are among the list. A little farther away are Elkhart Lake and the Dells of the Wisconsin River; and beyond are Marquette—with its magnificent Hotel Superior—Minocqua, Star Lake, Lake Minnetonka, Lake Okoboji, Spirit Lake and hundreds of other deliciously inviting and invigorating spots where energy will be revived and life prolonged by a visit of a few days or a sojourn of a few weeks.

The season opens early in June and lasts until late in September.

Excursion tickets are sold every day during the summer months. Our summer guide book with list of hotels and boarding houses will be sent free upon application to Geo. H. Headford, General Passenger Agent, Old Colony Building, Chicago, Ill.

GRAIN BAGS—BURLAPS.



All kinds of Bags,
New and Second Hand.

ORDERS FILLED PROMPTLY.

W. J. JOHNSTON,

Factory and Office,
182 Jackson Street, CHICAGO

E. R. Ulrich & Sons,

SHIPPERS OF

WESTERN GRAIN,

ESPECIALLY

High Grade White and Yellow Corn.

Elevators through Central Illinois on Wabash Ry., Chicago & Alton Ry., C. P. & St. L. Ry., and St. L. C. & St. P. Ry.

Main Office, 6th Floor, Illinois National Bank Building.

SPRINGFIELD, ILLINOIS.

Write for prices delivered. We do not care to make prices south of the Ohio River, on account of the freights.

COMMISSION CARDS.

[We will not knowingly publish the advertisement of a bucketshop keeper or irresponsible dealer.]

M. F. BARINGER

....SUCCESSOR TO....

J. R. TOMLINSON & CO.

...GRAIN AND MILL FEED...

416-418 Bourse Bldg., Philadelphia, Pa.

Correspondence with millers and grain dealers solicited. Sight draft with bills of lading attached honored on all shipments.

F. W. RUNDELL.

ESTABLISHED 1877.

J. E. RUNDELL.

W. A. RUNDELL & CO.

We buy, delivered Toledo, or f. o. b. your own track, always paying highest market prices. We also give personal attention to consignments. We were brought up in the business. If you are a consignor send your shipments to us. We guarantee you as good sail faction as you can get anywhere, and at the lowest possible rates.

Correspondence solicited. Ask for daily market letter.

.....Room 4 Produce Exchange, Toledo, Ohio.

T. D. RANDALL. ESTABLISHED 1852. GEO. S. BRIDGE.

T. D. Randall & Co.,

GENERAL COMMISSION MERCHANTS.

GRAIN, HAY AND FLOUR.

Special attention given to supplying millers
with good milling wheat.

219 South Water Street, - - - CHICAGO.

A. R. CLOUGH,

MILLER'S AGENT,

GRAIN AND MILL FEED,

Board of Trade Rooms, Manchester, N. H.

Letters promptly answered. All sales direct.

I want a good Toledo corn account.

Bernier & Company,

WHOLESALE DEALERS IN

GRAIN, FLOUR AND SEEDS,

St. Hyacinthe, Quebec, Canada.

COMMISSION CARDS.

B. WARREN.

B. WARREN JR.

WARREN & CO.,**Grain Commission Merchants,**

ROOMS 7 AND 9 CHAMBER OF COMMERCE,

Peoria, Ill.

GRAIN DEALERS**We Want Your Business.**

If you appreciate Honest Work, Good Treatment and Prompt Returns, consign your grain to us.

CALUMET GRAIN ELEVATOR COMPANY,
CHICAGO.

Arthur Sawers in charge of receiving business.

LEMAN BARTLETT.

O. Z. BARTLETT

L. Bartlett & Son,**GRAIN AND PRODUCE
COMMISSION MERCHANTS.****BARLEY A SPECIALTY.**Room 23 Chamber of Commerce Bldg
Milwaukee, Wis.

Careful attention given to orders from Brewers, Maltsters and Millers

**F. H. PEAVEY & CO.,**

Minneapolis,

Minn.

Consignments Solicited.

MILLING WHEAT A SPECIALTY.W. M. BELL, PRESIDENT. JOHN H. BOEMER, SECRETARY.
WM. D. SAWYER, VICE-PRES. AND TREAS.**The Bell Commission Company,**

INCORPORATED.

Grain, Provisions, Seeds.REPRESENTED IN
CHICAGO,
MINNEAPOLIS,
DULUTH,
KANSAS CITY.
WE INVITE CONSIGNMENTS.
ROOM 63 MITCHELL BUILDING,
MILWAUKEE, WIS.J. F. ZAHM.
F. W. JAEGER.
F. MAYER
ESTABLISHED 1879.**J. F. ZAHM & CO.,**
GRAIN AND SEEDS,
TOLEDO, OHIO.

SEND FOR OUR RED LETTER...

Consign Your Grain and Seeds

— TO —

WARE & LELAND,
COMMISSION MERCHANTS,
234 La Salle Street, - - CHICAGO.

Orders for future delivery executed on margin.

Edward G. Heeman in charge of Receiving Department.

COMMISSION CARDS.

ESTABLISHED 1865.

L. EVERINGHAM & CO.,**Commission Merchants.**

ORDERS AND CONSIGNMENTS SOLICITED.

GRAIN AND SEEDS OF ALL KINDS

For Cash and Future Delivery.

Suite 80 Board of Trade, - - CHICAGO, ILL.

Rosenbaum Brothers,
COMMISSION MERCHANTS

Receivers and Shippers.

GRAIN AND SEEDS.ROOM 77 BOARD OF TRADE BUILDING,
CHICAGO.**EDWARD P. MERRILL,**

Millers' Agent.

Flour, Grain and Mill Feed.

OFFICE:

21-2 Union Wharf, PORTLAND, MAINE.

No consignments wanted. I want a good Corn Account.
Letters Promptly Answered.**Pratt-Baxter Grain Co.,**

TAYLORVILLE, ILL.

Stations on Wabash Railway.

SHIPPIERS OF WHEAT, CORN AND OATS.Specialty of White and Yellow Corn,
Fresh from Farmers.**E. L. ROGERS & CO.,**ESTABLISHED
1863.**COMMISSION
MERCHANTS,**

RECEIVERS AND EXPORTERS

GRAIN, Flour, Seed, Hay and Straw,

358 Bourse Building, PHILADELPHIA, PA.

Liberal advances made on consignments. Market reports furnished gratuitously on application. Correspondence solicited.

References: { Corn Exchange National Bank.
Manufacturers National Bank.
Merchants National Bank.**COLLINS & CO.,**STRICTLY COMMISSIONGrain, Hay and Mill Feed.**CINCINNATI, OHIO.**

CORRESPONDENCE SOLICITED.

SAWYER GRAIN CO.

COMMISSION MERCHANTS.

MINNEAPOLIS & DULUTH.

PROMPT SERVICES.

COMMISSION CARDS.**DANIEL P. BYRNE & CO.**

SUCCESSORS TO

Redmond Cleary Commission Co.

Established 1854.

Incorporated 1887.

Grain, Hay and Seeds,

Chamber of Commerce, ST. LOUIS, MO.

ESTABLISHED 1867.

Reference: DUQUESNE NAT. BANK.

**Daniel McCaffrey's Sons,
HAY, GRAIN AND FEED.****CONSIGNMENTS SOLICITED.**

PITTSBURG, PA.

A. G. TYNG, JR.

D. D. HALL.

TYNG, HALL & CO.,**Grain and Commission Merchants**

ROOMS 33 AND 35 CHAMBER OF COMMERCE,

Peoria, Illinois.

Members Chicago Board of Trade.

JAMES P. SMITH & CO.,**GRAIN,**

417-418 Rialto Building, CHICAGO.

ARMOUR & CO.,205 LA SALLE STREET,
CHICAGO.**GRAIN BUYERS AND DEALERS.****L. F. Miller & Sons,**

RECEIVERS AND SHIPPERS OF

GRAIN, FEED, SEEDS, HAY, ETC.

OFFICE 2933 N. BROAD ST., PHILADELPHIA, PA.

CONSIGNMENTS SOLICITED.

ELEVATOR AND WAREHOUSE, GERMANTOWN JCT., P. R. R.

References: { Manufacturers National Bank, Philadelphia, Pa.
Union National Bank, Westminster, Md.**GEO. N. REINHARDT & CO.**

MELROSE STATION, NEW YORK CITY.

Geo. N. Reinhardt & Co.
 DEALERS IN
HAY, STRAW & GRAIN.



We sell on Commission and buy direct.

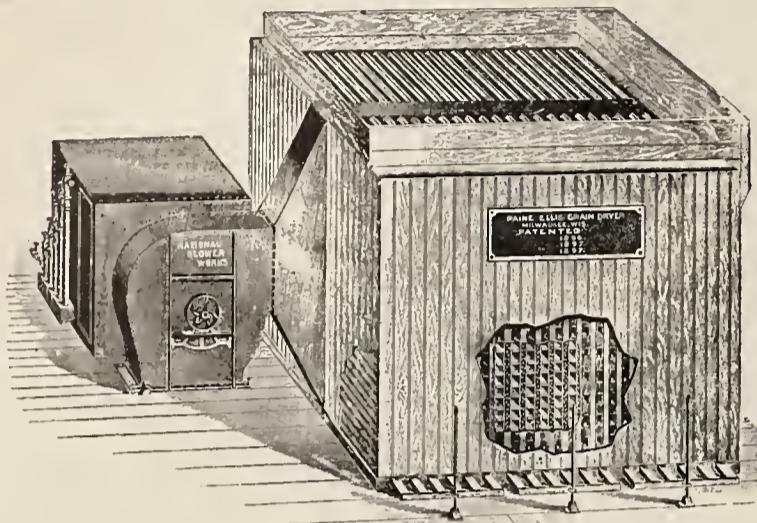
HAY, GRAIN AND FEED.Storage capacity 8,000 bales, 80,000 bushels
Let us know what you have to offer.

\$50.00 Reward for First Notice of any Infringement.

The Paine-Ellis Grain Drier

is THE ONLY PRACTICAL DRIER
that will successfully handle grain
containing from 5 to 40 per cent excess
moisture.

OPERATION AND CAPACITY GUARANTEED.



Capacity from 50 to 2,000 bushels per hour.

Write for Catalogue and Particulars.

The Paine-Ellis Grain Drier Co.,

No. 52 Chamber of Commerce,
MILWAUKEE, WIS.

DAMP WHEAT can be PUT in CONDITION for
GRINDING or STORAGE

By using our

STEAM DRYER,

Which is also a successful
Wheat Heater or Temperer
or Dryer for Washed
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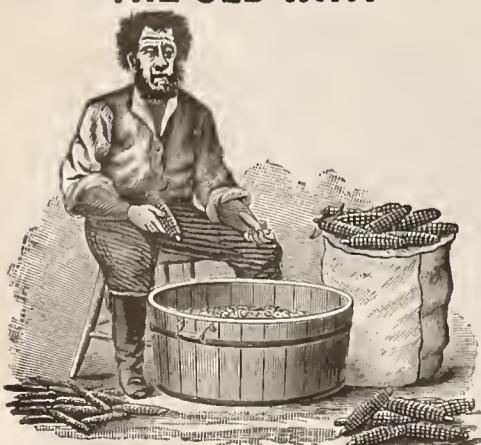
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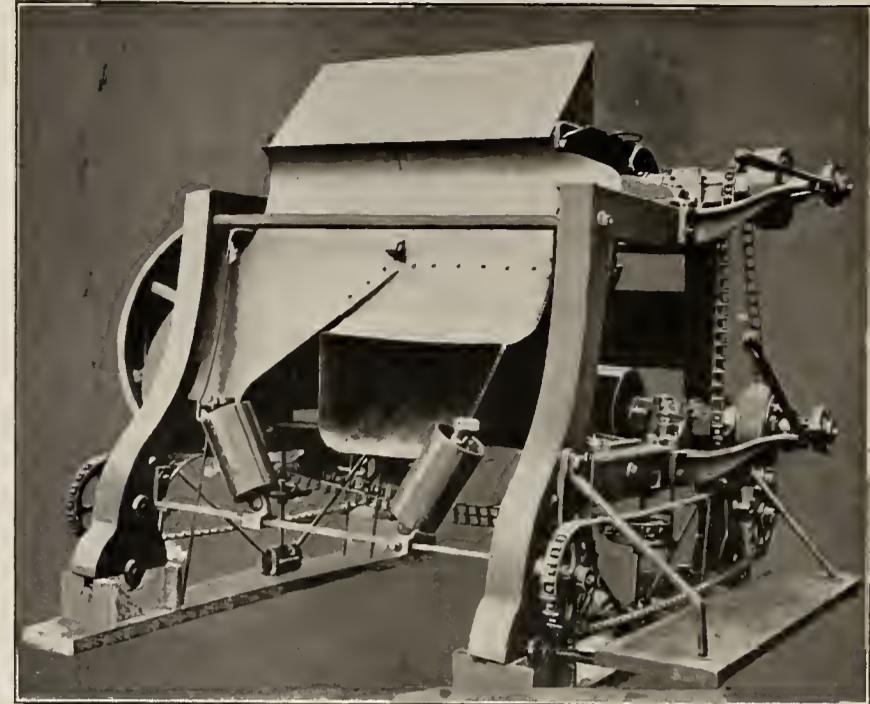
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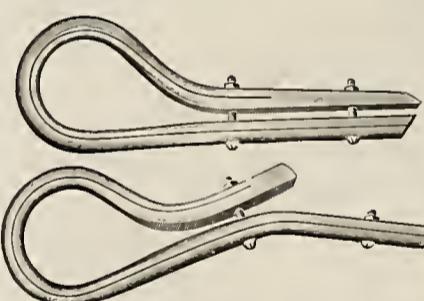
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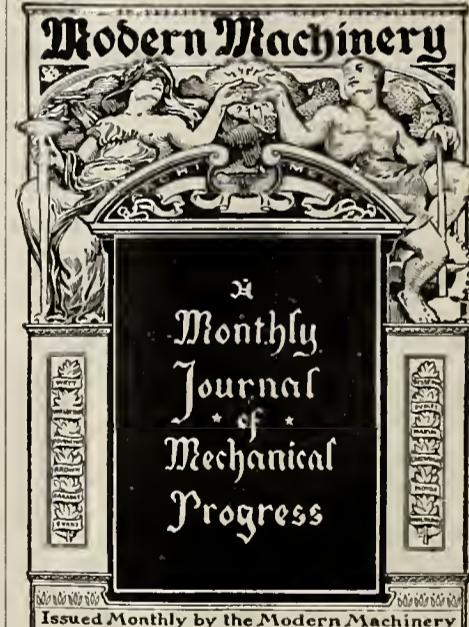
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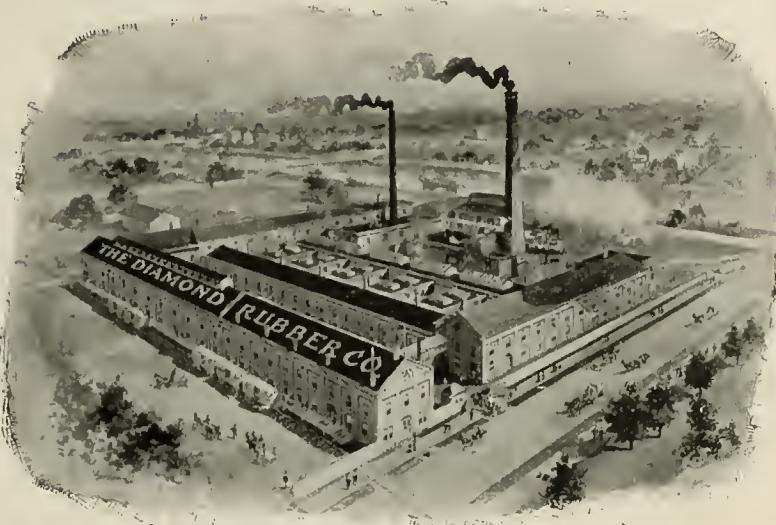
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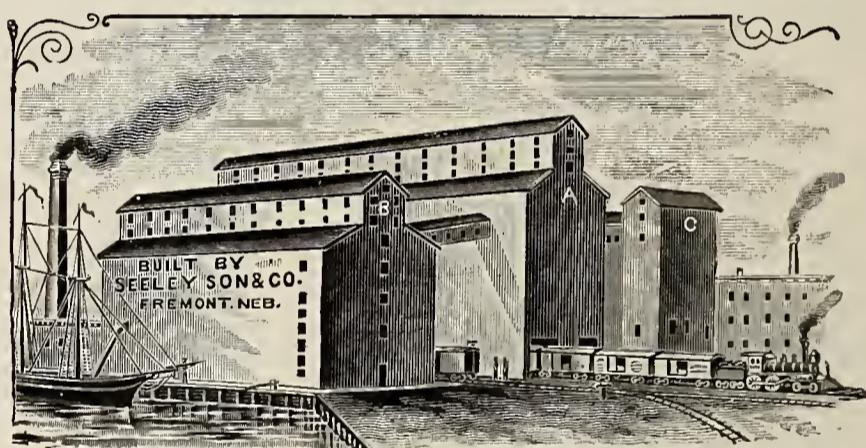
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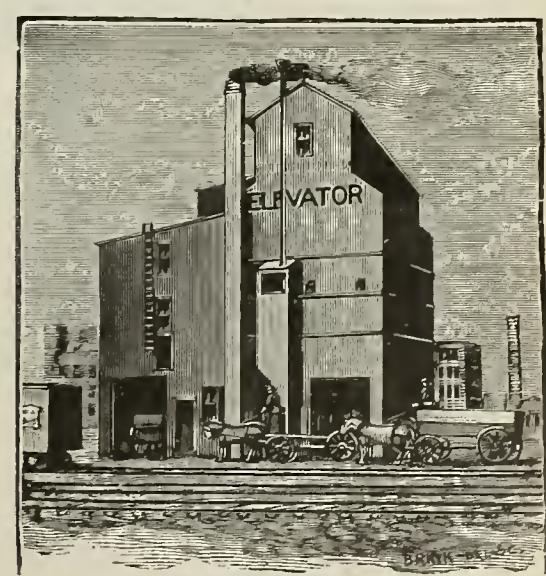
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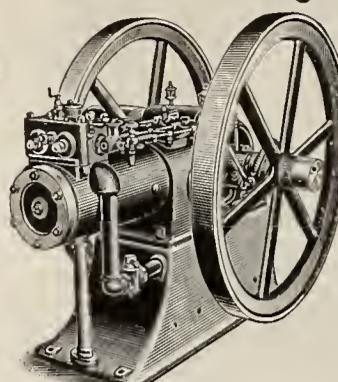
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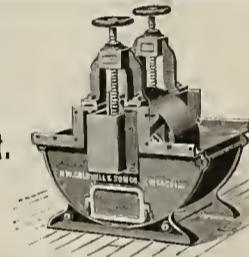


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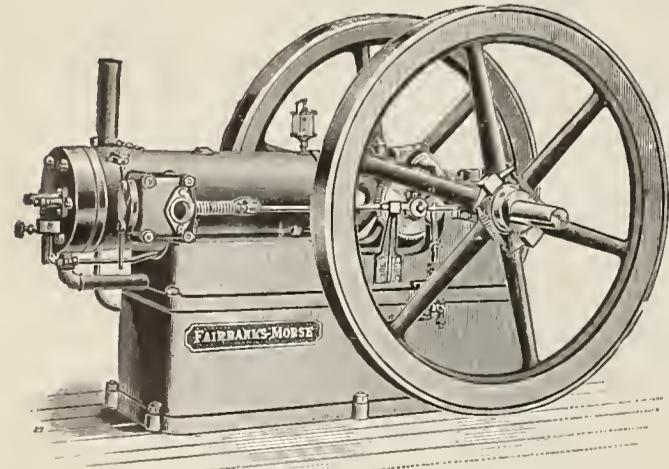
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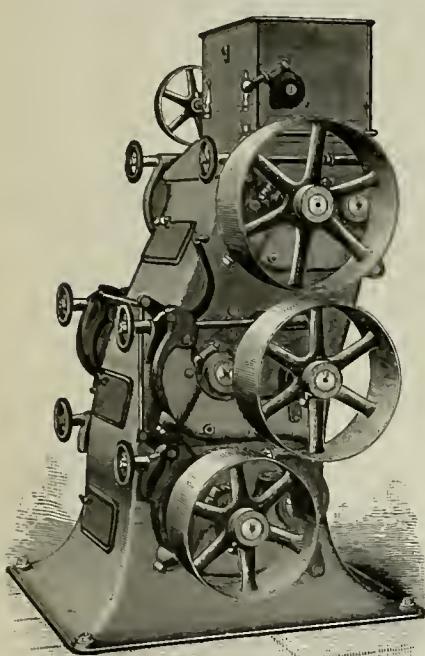
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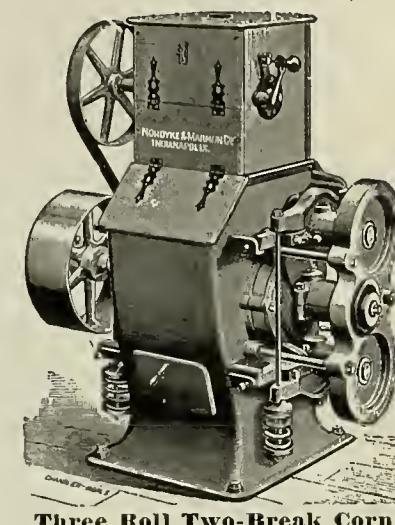


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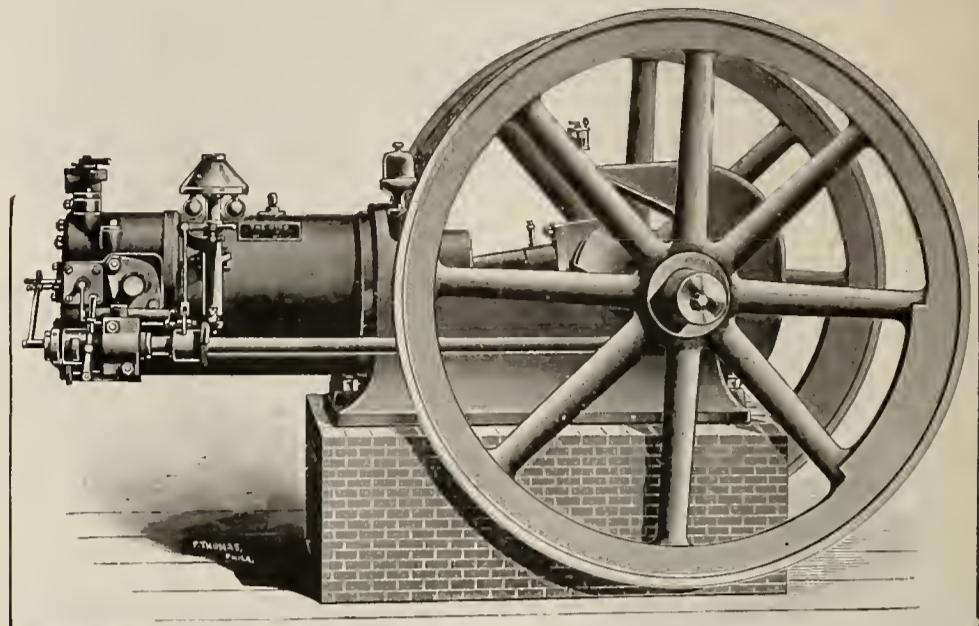
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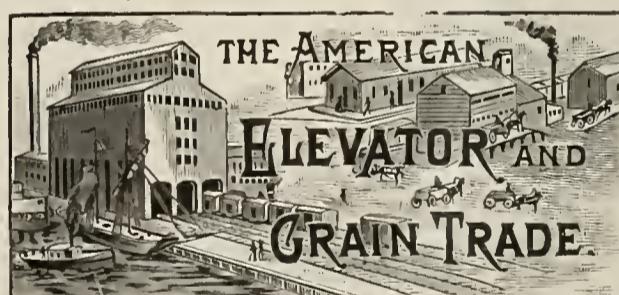
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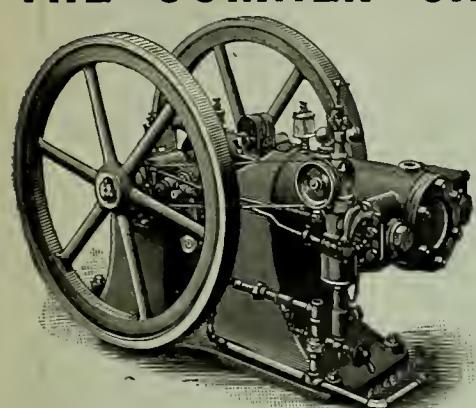
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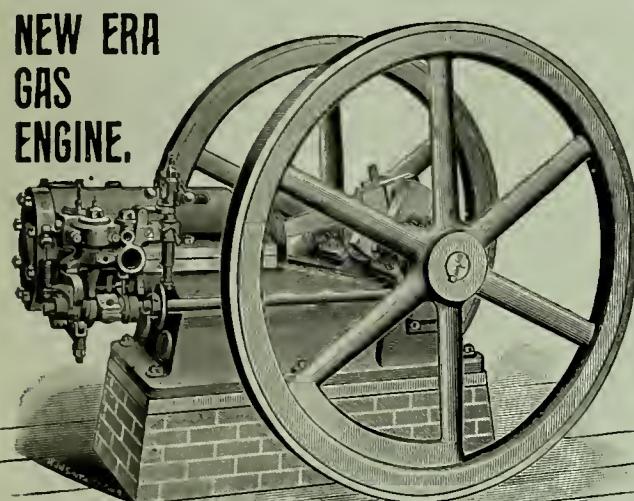


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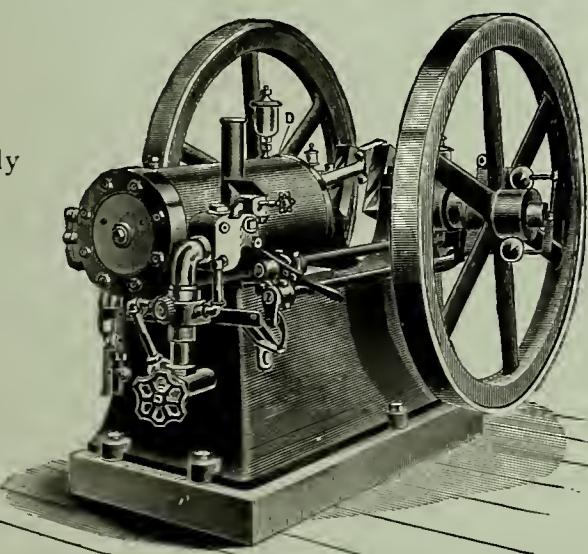
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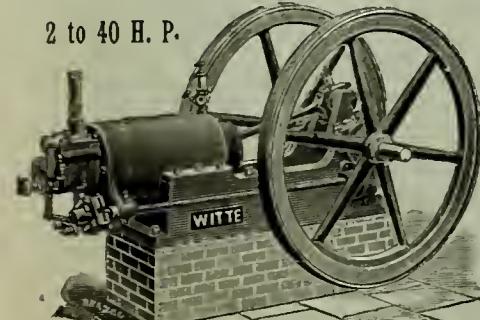
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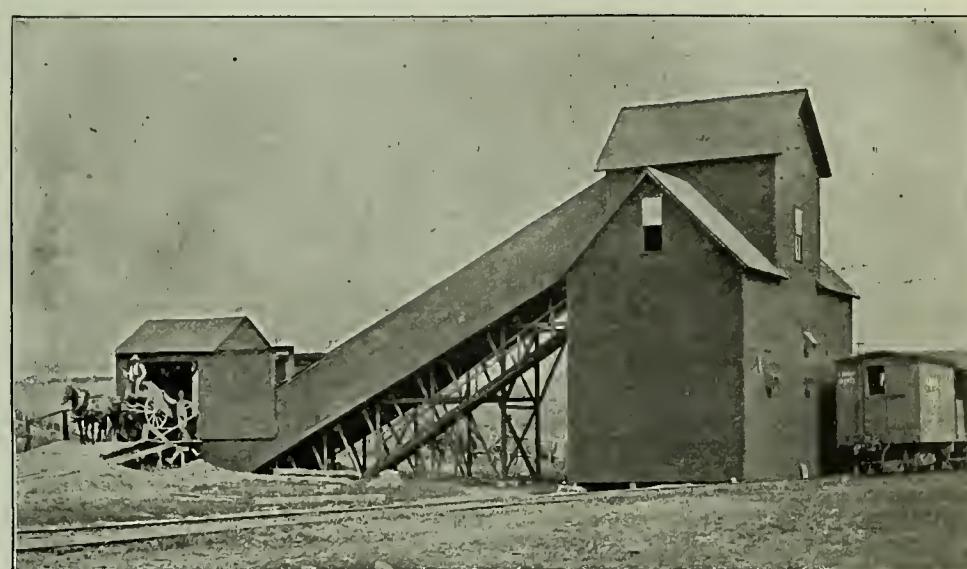


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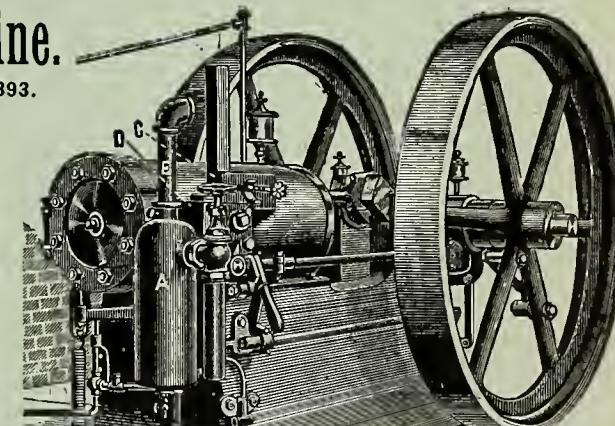
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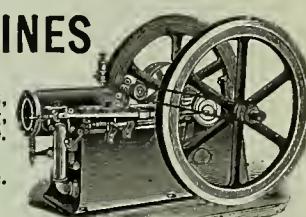
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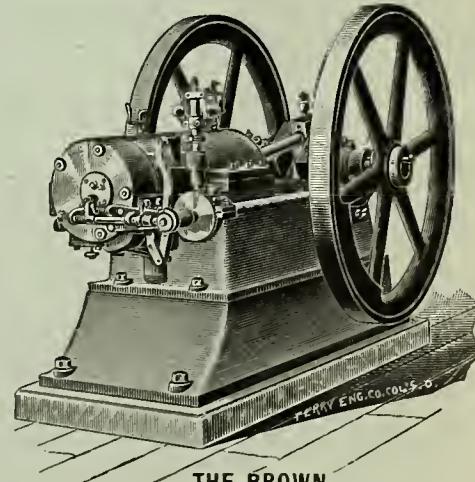
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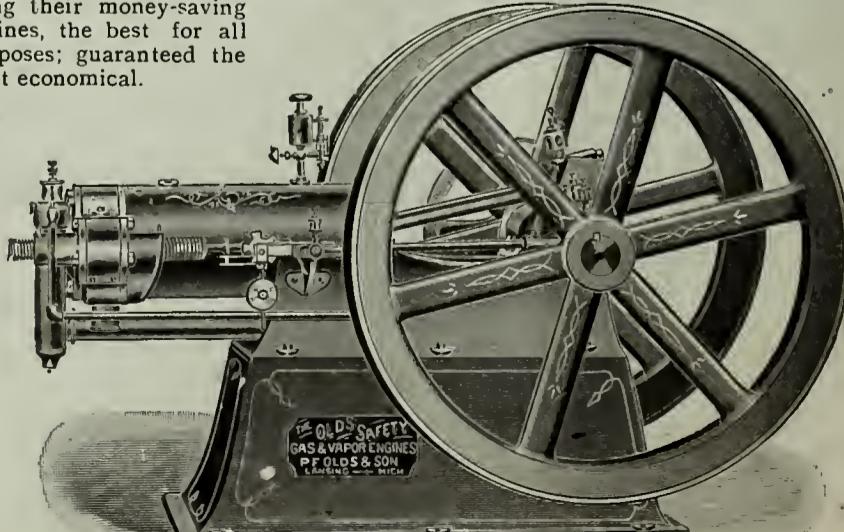
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